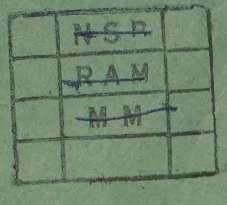
REPORT

on the working of the

DEPARTMENT OF AGRICULTURE

for the year

1966



MALTA
DEPARTMENT OF INFORMATION
1968

Price 3/6

DEPARTMENT OF AGRICULTURE,
93, Archbishop Street,
VALLETTA.

16th April, 1968.

Sir,

I have the honour to submit my Report on the working of the Department of Agriculture for the calendar year 1966.

I have the honour to be,
Sir,
Your obedient servant,

(A.S. Farrugia)
Director of Agriculture
and Fisheries

The Honourable,
Minister of Trade,
Industry and Agriculture,
VALLETTA.

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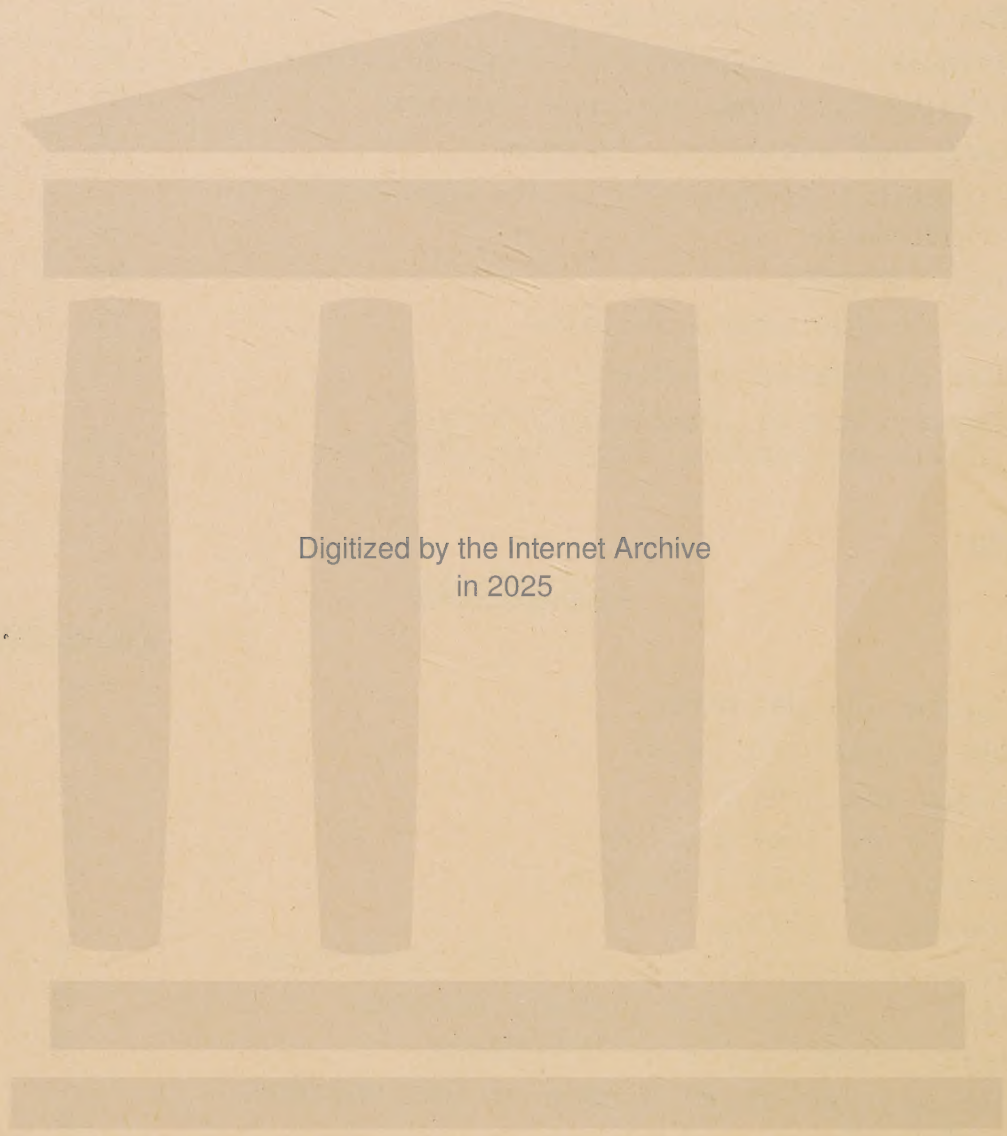

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STAFF LIST OF SENIOR OFFICERS AS ON 31st DECEMBER 1966

Administrative & Executive Officers

Mr Anthony S.Farrugia,B.Com., B.Sc.Econ.	- Director of Agriculture and Fisheries
Mr Edward H.Camilleri	- Senior Administrative Officer
Mr George Portelli	- Administrative Officer
Mr Edgar Causon	- Higher Executive Officer
Mr Carmelo Spiteri	- Higher Executive Officer
Mr Carmel Callus	- Higher Executive Officer
Mr Joseph Buhagiar	- Executive Officer

Technical Officers

Dr.Andre' Cassar, B.Sc., B.V.Sc.,M.R.C.V.S.	- Principal Govt.Vet.Surgeon & Director of Govt.Vet. Services
Mr S.J.Zammit,F.R.H.S.	- Supt.of Government Farms
Mr J.Debrincat	- Senior Agricultural Officer
Dr.G.J.Peralta,D.Sc.(Agric.)	- Plant Pathologist
Mr George Cousin	- Supt.of Public Gardens and Plantations
Mr Joseph Frendo	- Chief Fisheries Officer
Mr Louis J.Saliba,B.Sc., B.Sc.Hons.(Lond.),B.Pharm., B.I.Biol.,F.R.E.S.	- Plant Pathologist and Entomologist
Mr C.Galea Enriquez,B.A.,M.Sc., F.R.Econ.S.	- Agricultural Economist
Mr A.Scicluna Spiteri,B.Pharm., B.Sc.(Agric.),M.Sc.(Soil Sci.) (Durham),F.R.M.S.	- Agricultural Chemist
Mr Francis Portelli, B.Sc. (Hort.), B.Pharm.	- Horticulturist
Mr H.Galea Souchet,B.Sc.(U.C.D.) M.A.S.E.,M.A.S.H.S.,M.I.S.H.S.	Viticulturist & Oenologist
Dr.Frank Cassar,D.Vet.Med.	- Government Veterinary Surgeon
Mr Edward Ebejer Slythe,C.D.A. C.D.D.	- Higher Agricultural Officer
Mr Joseph Debattista,N.D.A., C.D.A.,N.D.Agric., A.M.I.Agr.E.	- Agricultural Officer
Mr Clive Simpson,N.D.A.,C.D.A.	- Agricultural Officer
Mr Dominic Sultana,N.D.A., C.D.A., N.C.P., C.C.P.	- Agricultural Officer
Mr Saviour P.Camilleri,C.D.A.	- Agricultural Officer
Mr Joseph Buttigieg,C.D.A.	- Agricultural Officer
Mr Peter Calamatta,C.D.H.	- Agricultural Officer
Mr Victor Rossignaud	- Agricultural Marketing Officer

F.A.O. Experts

Mr Godfrey G.Alton,B.Sc., M.R.C.V.S.	- Veterinary Bacteriologist
Mr Robert W.Crowther,B.Sc. M.R.C.V.S.	- Animal Health Officer

U.N.D.P./F.A.O. Horticultural & Demonstration Project

Mr Giovanni B.Mazzocchi	- Project Manager
Mr Guy Spoiden	- Greenhouse Management Technician
Mr E.Collingwood	- Plant Protection Specialist
Mr R.Siddall	- Greenhouse Production Specialist
Mr Eric Le Tissier	- Greenhouse Management Technician

Italian Veterinary Surgeons

Dr.Clodeveo Capitoli	- Veterinary Surgeon
Dr.Vincenzo Agamennone	- Veterinary Surgeon

CHAPTER I
THE DEPARTMENT OF AGRICULTURE AND FISHERIES

The Department of Agriculture and Fisheries is made up of a number of Sections, each with its head. All these sections, though independent of one another, have their functions correlated, through the directions given by the Director of Agriculture and Fisheries who formulates the agricultural and fisheries policies in accordance with ministerial directives.

b) The following constitute the main Sections of the Department:-

i) Administrative Sections, ii) Agricultural Marketing, iii) Information, iv) Plant Protection, v) Soil and Nutrition, vi) Horticulture, vii) Government Experimental Farm, viii) Viticulture and Oenology, ix) Extension Service, x) Gardens, Plantations and Afforestation, xi) Veterinary Services, xii) Gozo, xiii) Co-operatives, xiv) Fisheries.

i) The Administrative Section is subdivided into a) Registry, b) Expenditure, Personnel and Supplies and c) Pitkali Accounts, Revenue and Loans and Grants.

a) The Registry is the medium through which all Sections operate. On the prompt action of the personnel in this Section all other Sections depend. The quick movement of the files contributes appreciably to the general efficiency of the Department.

b) The Expenditure, Personnel and Supplies Section is headed by a Higher Executive Officer. He is responsible for all payments made by the Department and he is generally consulted on questions relating to recruitment, promotion and discipline. All Indents, draft specifications and conditions for call of tenders are drawn up by this Section. A Store Officer who has the physical possession of goods advises the Supply Officer as to the orders for supplies that should be placed from time to time.

c) The Pitkali Accounts and Revenue Section under the charge of a Higher Executive Officer, is responsible for the payment to farmers of produce sold at Pitkaliji and for the collection of all fees, etc., due to the Department. Questions regarding Loans and Grants are also dealt with by this Section.

ii)../..

ii) The Agricultural Marketing Section is managed by an Agricultural Economist assisted by a Marketing Officer. This Section watches over the supply and demand position and suggests means to equalize as much as possible these two variables.

Subsidies fall also within the sphere of this Section. The Pitkali Inspectors who daily supervise the sales of vegetables made at the several Pitkaliji also form part of this Section. This system enjoys the full confidence of the majority of farmers who in virtue of this procedure get the full proceeds less a small commission that their produce fetches at the auctions.

iii) The Information and Publicity Section is under the charge of a Senior Information Officer. It is responsible for the editing and publishing of the Department's monthly paper now called "L-AGRIKULTURA" and for the running of the Sunday Broadcasts for farmers and fishermen over the Rediffusion System.

iv) The Plant Protection Section includes the Contract Spraying Service. A modern laboratory including a photographic room is available to this section. Here insect pests and plant diseases are diagnosed and research in remedial measures is carried out.

v) The Land and Water Use Section - Soil and Nutrition - The Agricultural Chemist has been given charge of the Land Use Section. This unit now incorporates the Survey Office. A Laboratory for the examination of animal nutrition and for soil analysis is fully equipped for the purpose.

vi) Horticulture is being given the spurt it deserves. The number of glass and polythene houses is on the increase and items planted are also becoming more numerous. Tomatoes, bell-peppers, cucumbers and carnations have given remarkable results.

vii) The Government Experimental Farm is controlled by a Superintendent. Experiments of all kinds are carried out here and the knowledge gained is passed on to breeders and farmers. Pedigree animals and tried seeds are distributed to herdsmen and farmers respectively at reduced prices.

viii) Viticulture and Oenology are being increasingly

developed../..

developed. A Model Vine Nursery has been established and experiments have been carried out with some success. This section has contributed greatly towards making the Islands self-supporting in the manufacture of little vines.

The Buskett Model Winery has stopped to manufacture wine for the public. Only choice wines, on an extremely restricted scale, are being made.

ix) The Extension Service is run by a Higher Agricultural Officer with three other Agricultural Officers to assist him. The Island has been divided into regions and each Agricultural Officer has one region to look after. The duties of these Officers are manifold and include the dissemination of Agricultural knowledge in all its ramification including Animal Husbandry.

x) Public Gardens, the Governor's private gardens, plantations along roads, afforestations over all the Island, roundabouts, strips and glacis are all managed by the Superintendent of Public Gardens.

xi) The Veterinary Services are responsible for the health of all livestock on both Islands. During the year one of the three Veterinary Surgeons resigned and left the Island.

A Diagnostic Laboratory is available at the Civil Abattoir.

Research into Brucella Melitensis continued. Some good results have been obtained through the manufacture of a certain vaccine which is giving partial immunity from the disease to goats. But as these good results are not considered to be as yet significant enough, further experiments are being proceeded with.

xii) In Gozo, all agricultural activities are controlled by the Senior Agricultural Officer. He carries out the day to day business as directed from time to time by the Director of Agriculture.

xiii) Co-operatives are supervised by a Higher Executive Officer under the direct control of the Director of Agriculture who is also Registrar of Co-operative Societies. He has a number of inspectors to assist him to examine the books of accounts of the several co-operatives

and../..

and to give advice to the various committees conducting the business of the co-operatives, spread all over both Islands.

xiv) Fisheries are managed by a Chief Fisheries Officer who carries out activities under the Director of Agriculture's directives. A number of Fisheries Officers and other staff help him in the execution of his duties.

CHAPTER II

INFORMATION AND PUBLICITY SECTION

The Information and Publicity Section is under the charge of a Senior Information Officer. It keeps the farming community "au courant" with the information and advice which the Department intends to publish, from time to time, for the farmers' benefit.

This Section is responsible for the compilation and relay on the Rediffusion System of a Sunday Programme for farmers which is an all-the-year round feature. It is also responsible for the compilation editing and circulation of the Department's bi-monthly organ L-"Agrikoltura" issues leaflets, makes arrangements for Press Conferences, issues notices and press communications keeps in constant touch with the other Sections of the Department, carries out several registrations of farmers and effects the translation into official Maltese of technical material provided by the Technical Officers of the Department.

During the year under review, a marked improvement was effected in the Sunday Broadcasts to farmers by the introduction of live and recorded interviews on topical questions and new departmental projects. Another step forward was made in June 1966 when L-"Agrikoltura" started to be issued twice monthly instead of once and, furthermore, by illustrating major departmental activities and topical occasions and material by appropriate pictures which have given a new look and a new interest to the Department's paper.

The Senior Information Officer also acter as Registrar to the Agricultural Leases (Control) Board helped by an Information Officer and a Clerk Typist.

CHAPTER III
EXTENSION SERVICE SECTION

General

The Extension Service continued during 1966 its sterling work of advising and helping farmers and breeders to improve their management and to obtain better returns for their efforts. For this purpose Malta was sub-divided into four districts each under the responsibility of an Agricultural Officer.

The overall organization of Extension work in Malta was directed by the Higher Agricultural Officer.

The Extension Service Officers lectured on Agricultural and Livestock subjects during the period January/July at the Agricultural School, Ghammieri. They also organized a series of specialised lectures at Ghammieri for farmers on Crops, Horticulture, Dairy cows, Pigs, Poultry and Rabbits.

A fifth Water Festival was organized and held at Rabat in July.

Sectional:

A large number of farmers called at Ghammieri for help and advice during 1966, and the Agricultural Officers made over 3200 visits to farmers and farms during the year to give advice and report on:-

A. Requests for Loan and Grants for:
- i) Erection of Pig Units
- ii) Erection of Poultry Units
- iii) Purchase of Rotary Cultivators
- iv) Purchase of Overhead Irrigation Equipment.

B. Requests for Aid from Incentive Grants for:
- i) Repairs to Farm Houses
- ii) Extension of Water and Electricity to farmhouses
- iii) Adopted Farms.

C. Advisory Visits in connection with:
- i) Management and Feeding of Dairy Cattle, Goats and Sheep.
- ii) Management and Feeding of Poultry and Rabbits
- iii) Crop Rotations and varietal Improvements.
- iv) Manures and Fertilisers.

The ../..

The whole concept of advisory visits has been to teach the farmer or herdsmen to acquaint himself with and adopt modern techniques. In the field of Dairy Management some of the subjects discussed were feeding of calves and milking cows, the improvement of the butter-fat content of milk, the construction of calf pens, milk recording. In the field of poultry management emphasis was laid on the rearing and feeding of chicks and growers, lighting patterns for layers, disease control and systems of housing layers.

To help the dry land farmers obtain better and more lucrative crops a programme of Farmers Meetings was organized to distribute improvedvarieties of seeds to farmers. The meetings were well attended by farmers who are showing an evergrowing interest in the work of the Department.

A drive has been made to show farmers how to feed their pigs on a scientific basis in connection with the distribution of subsidised Sorghum donated by the U.S.A. and the Agricultural Officers have kept in personal contact with the pig breeders who registered for Sorghum.

In December each Agricultural Officer took over a various section of the Government Farm for demonstration purposes.

This would enable each Agricultural Officer to demonstrate to farmers in actual practice the various techniques which they teach and to show farmers the results obtained by adopting such advice.

CHAPTER IV

THE VETERINARY SERVICES

The Veterinary Services are run by the Principal Government Veterinary Surgeon and Director of Veterinary Services, assisted by two Italian and one Maltese Veterinary Surgeons. Moreover, research work on Brucellosis was continued by Dr. G.G.Alton at the Government Farm whereas Bacteriological and Diagnostic work was carried out at the new Diagnostic Laboratory at the Civil Abattoir, Marsa, by Dr.R.W.Crowther.

The main activities of the Veterinary Services in Malta and Gozo fall under three main headings i.e.:-

a) Activities in the Abattoir
b) Activities in the Field
c) Diagnostic work

a) Activities in the Abattoir

The activities in the Abattoir constitute an essential public service in so far as they safeguard the health of the population. In fact, by law, all animals are slaughtered by Government butchers in the Abattoir and inspected by Veterinary Surgeons, assisted by a qualified Meat Inspector.

The following animals were slaughtered in Malta and Gozo Civil Abattoirs:

i) Slaughterings from 1st January to 31st December 1966

	Cattle	Equines	Pigs	Sheep	Lambs	Goats	Kids
Malta	8191	325	33122	5622	4553	6240	2457
Gozo	618	12	1227	136	1060	143	326
Total	8809	337	34349	5758	5613	6383	2783

ii) Weight in rotoli of above number of animals slaughtered

Malta	2555206	69235	2771264	210140	42294	159336	8758
Gozo	203324	3022	325004	4060	10908	3637	1956
Total	2758530	72257	3096268	214200	53202	162973	10714

Diseases../..

Diseases and other causes of unsoundness of meat detected in the course of meat inspection.

Returns of meat condemned in the course of meat inspection are shown in Table 10.

Putrefaction

Putrefaction is one of the commonest causes of unsoundness of meat. During the year under review 4 carcases were condemned as being in a state of Putrefaction. This is explained by the fact that animals slaughtered as emergency cases soon begin to decompose and putrefy especially during the hot summer months.

Tuberculosis

Table10 also shows that 1 carcase was condemned owing to generalised Tuberculosis. This figure does not represent the total number of tuberculosis cows slaughtered during the year under review but only one cow that was found affected with Tuberculosis during the routine meat inspection. All cows that are positive reactors to the Tuberculin Test are slaughtered on non-slaughtering days i.e. Tuesday and Thursday and are not included in the above-mentioned Table.

b) Activities in the Field

Activities in the field consist in the Prevention, Control and Eradication of animal diseases.

i) Prevention

Every year, Malta imports about 7,000 head of store cattle which are fattened from three to five months and then slaughtered. These store cattle, supplemented by another 2802 local bovines, represent the total consumption of fresh beef in these Islands. This importation, carried out throughout the whole year, constitutes a serious danger of introducing some infectious or contagious disease. As there is no chance of doing away with this importation, since fresh beef is preferred to frozen beef by the majority of the population, there is no alternative to taking the strictest precautions imaginable before any consignment of store cattle arrives in these Islands. In fact, unless the exporting country is totally free and has been free for several months from Foot and Mouth Disease, no Import Licence is granted.

These../..

These precautions may appear to be too drastic but they are essential. In fact, by adopting these measures we have succeeded in keeping these Islands free from Foot and Mouth Disease and other infectious and contagious diseases for the last 20 years. These precautions are also essential for various reasons amongst which are:-

a) the size of the Islands, only 100 square miles, does not permit of any strict isolation of any infected animal. In fact, if Foot and Mouth Disease were to take any foot-hold in Malta, it would spread like wildfire;

b) some of the cow-sheds and most of the pig sties are extremely difficult, if not impossible, to disinfect properly;

c) the control of any movement of animals would be also an extremely difficult task;

d) the Quarantine Station at Manoel Island was demolished by the enemy action and only one shed capable of housing about two hundred bovines was left.

It was, therefore, decided to build sheds at Zammit Dock which is now serving as a landing place where imported cattle are examined, immediately they are unloaded, and subsequently kept for 24 hours' fasting period. Zammit Dock is not ideally situated for quarantine purposes as the former Lazzaretto Quarantine Station was but, after various vain efforts to find an ideal place, there was no alternative to accepting Zammit Dock as a Quarantine Station. The sheds are now completed although the encircling road, which is essential if the quarantine station is to be effective, is not ready yet.

The strong chain of precautions, taken to prevent the introduction of diseases, lies in the Supplies and Services Act, 1947 (Importation and Control) Regulations, 1959.

Besides../..

Besides the strict control exercised before granting an Import Licence, All cattle are examined immediately on arrival. They are then kept under observation for another three to five days and again examined before they are released.

Horses are likewise examined for Glanders and Farcy and other infectious diseases on arrival and dogs imported from countries where Rabies is known to exist are kept in quarantine for six months in Government Quarantine Kennels. The same period of Quarantine is imposed on dogs coming from Rabies free countries if the animals happen, during their journey to Malta, to have travelled through countries where Rabies exists.

Cats, coming from any country, are not subjected to any quarantine as our existing regulations do not mention cats. Although dogs can be very dangerous in transmitting the diseases, yet cats cannot be excluded from being potential dangers of spreading the disease and, therefore, immediate steps are required to amend the existing regulations and include cats as well.

Lately, the number of dogs, requiring quàrantine, greatly exceeded the number of kennels available and this situation is worrying.

If the existing regulations and those envisaged to be enforced soon, are to be effective, then new kennels must be built. A sum of about £1,500 will be required to provide the necessary accommodation.

(ii) Control

The most prevalent animal diseases in the Islands were:-

Bovines: Tuberculosis, Brucellosis, Mastitis and Enteritis in calves;

Swine: Swine Fever, Swine Erysipelas and Enteritis in young pigs;

Caprines../..

Caprines: Brucellosis
Poultry: Fowl Pox and Respiratory Diseases

a) Bovines

The control of Tuberculosis and Brucellosis will be explained under the heading "Eradication".

Mastitis in cattle is not as widespread as it was thought to be. However, as farmers have got into the habit of buying, without any prescription, intramammary penicillin and injecting it into diseased udders, irrespective of the type of bacteria causing the disease, a true picture of the real incidence in cows is not available. A lot of money is being wasted in this way by farmers, who as a rule, inject more penicillin than is necessary and as they do not bother to see what was the cause of the Mastitis.

Now that the Veterinary Diagnostic Laboratory at the Civil Abattoir is established, farmers are encouraged to bring their milk to this Laboratory to be examined before treatment is started. During the year under review a few farmers availed themselves of such facilities but the majority did not.

For calf enterities see Dr.Crowther's report later on.

b) Swine

For Swine Fever see Dr.Crowther's report following.

Swine Erysipelas

This disease is also endemic but its ill effects on our pig population are mitigated by the fact that it can be easily cured and, whenever one pig dies of swine erysipelas, the rest of the pigs are vaccinated in time and cured. Free vaccination of pigs against Swine Erysipelas is also carried out by Government on a voluntary basis, 3926 pigs were prophylactically vaccinated against Swine Erysipelas this year.

c) Caprines../..

c) Caprines

The principal disease affecting goats is "Brucella Melitensis". The losses through abortion and reduced milk yield must be quite relevant although our farmers do not appreciate such losses since they occur gradually and only few goats abort every year. However, for the last eight years, research work has been carried out and is still being carried out with a view to finding a suitable vaccine which will immunise goats against Brucellosis. Although the vaccination of female kids between three and six months of age is compulsory by law yet only 1,500 kids have been vaccinated this year in Malta and Gozo. It is rather difficult tracing the kids and the herdsmen are not being co-operative in registering their herds.

iii) Eradication

The testing of cows for Tuberculosis and Brucellosis was carried out smoothly both in Malta and in Gozo without encountering any opposition on the part of cowherds. All the bovines in Malta have been tested twice, those in Gozo, once, with the Single Intradermal Tuberculin Test and those cows, showing any positive reaction, were again tested with the Double Comparative Test six weeks after the first test. Cows being positive to the second test are slaughtered forthwith and compensated for. The herds in which any cow or cows are found to be positive are tested more frequently.

With regard to Brucellosis, samples of milk are taken every three months from churns taken to the Milk Collection Depots and subjected to the Milk Ring Test. If this test proves to be positive for any particular herd, then milk samples from every individual cow in that herd is taken or, if any cow happens to be dry, then blood samples are taken. The milk is cultured and the blood is subjected to the Agglutination test and, in cases of doubt, subjected to the Complement Fixation Test.

During the year under review all the cows in Gozo were free from Brucellosis but 14 were affected with Tuberculosis while in Malta 20 cows were affected with

Brucellosis and 22 cows were positive to the Tuberculin Test. All these cows were slaughtered. The fact that only 36 and 20 cows were found affected with Tuberculosis and Burcellosis respectively out of a total number of 6000 cows shows that the present incidence of Tuberculosis and Brucellosis in Malta and Gozo amounts to only 0.6% and 0.33% respectively. These facts give us every reason to hope that by the end of the Second Five Year Plan, we shall have achieved our aim, i.e. the eradication of both bovine Brucellosis and Tuberculosis from Malta and Gozo.

In Malta and Gozo 27,900 poultry were vaccinated against Fowl Pest, 106,358 poultry were vaccinated against Fowl Pox whereas 3,926 and 27,689 pigs were vaccinated against Swine Erysipelas and Swine Fever respectively. Six thousand head of cattle were also tested at least twice during this year and some of them were tested even three or four times. Each T.B. test of every herd involves three calls at the farm; the first time to inform the owner about the date and time of the test, the second call when the cows are tested and third call 72 hours after the test to take the measurements of the skin.

On top of all this work, 1500 female kids were vaccinated with Elberg vaccine against Brucella Melitensis and over 2000 goats were tested for Brucella Melitensis in Gozo.

When one takes into consideration the facts that poultry, pigs and kids are scattered in every corner of Malta and Gozo and that farmers, who must also attend to their fields, are not always on their farms to help the Veterinary Assistants and thus a lot of time is wasted, one must appreciate the excellent work done by the 4 Veterinary Assistants and one Herd Inspector. Had it not been for their devotion and high sense of duty we could not have achieved so much by such a small staff with limited means of transport.

With the compulsory vaccination of kids and pigs and the compulsory testing of cows for Tuberculosis

and../..

and Brucellosis on top of the voluntary vaccination of poultry against Fowl Pox and Fowl Pest and the vaccination of pigs against Swine Erysipelas there were periods of much overlapping of work and transport.

Veterinary Research

The past year has been remarkably free from major animal disease and control programmes have made steady and satisfactory progress. One could say that this state of affairs represents the ideal to be aimed at by any efficient Veterinary Service. Paradoxically, it makes for an unsensational and mercifully short report. This relative freedom from contagious disease has permitted more attention to be given to problems and disease associated with management.

Routine Diagnosis and Diseases

Work in this section has tended to be more diversified and, for the time being at least, the volume of work appears to have levelled off. Comparative statistics for the number of cases or outbreaks investigated are:-

1964	1965	1966
251	507	766

In terms of species of animal concerned this total may be broken down into:-

Poultry	Cattle	Pigs	Miscellaneous
589	39	79	59

It is unrealistic to attempt to give any statistical analysis of the diseases encountered because many of the commoner afflictions such as Coccidiosis and Leucosis are recognised by the livestock owners and are often not brought for diagnosis. The following general comments should give a more accurate picture.

A. Poultry

Fowl Typhoid and Fowl Pox continue to occur sporadically but a fair degree of control has been obtained in each case. Leucosis is much less common probably due to a general improvement in management. Diseases of dietetic origin have been relatively few; principally a Ca/Vit.D. deficiency and a Fatty Liver

syndrome../..

syndrome associated with the improper feeding of high energy rations. Respiratory conditions continue to be of minor importance in Malta. Coccidiosis is common though the intestinal forms are the more prevalent. Generally speaking the majority of our poultry problems are associated with faults in management, principally overcrowding and poor ventilation.

B. Cattle

Apart from T.B. and Brucellosis which are now almost eradicated, we have no recognised major diseases in cattle.

Mastitis is probably not as severe a problem as elsewhere and from the relatively few samples received at the laboratory, no one form of pathogen predominates. Reports are occasionally heard of abortions but suitable specimens are difficult to obtain and so far no specific cause has been identified.

Neo-natal mortality in calves is still a problem but the situation shows definite signs of improvement. On a small number of farms, improved housing combined with prophylactic E.coli serum have brought about a dramatic reduction in the losses. Grants to assist cattle owners to improve their calf houses are being issued and are finding a keen demand.

C. Pigs

During 1966 the Veterinary Field Service carried out 27,689 immunisations with live lapinised vaccine against Swine Fever amounting to roughly 70% of the total population. Only two outbreaks in non-vaccinated herds were reported during the year. In comparison, prior to the use of lapinised vaccine, it was possible to see Swine Fever carcases in the Abattoir during almost any routine inspection. The effective control of this disease must play a major part in future developments of the pig industry.

3926 pigs were vaccinated against Swine Erysipelas. This disease is endemic but not a source of heavy loss.

A fair../..

A fair proportion of piglets now receive iron injections as a routine with beneficial results. However losses, principally from B.coli infections, can be troublesome on some farms, generally where the hygiene is poor. Also sudden sporadic deaths are encountered quite commonly in recently weaned pigs. This condition appears to be a form of toxaemia distinct from that of Cl.Welchii and although now associated with oedema it yields readily to a regime of fasting and purgation. Tuberculose submaxillary glands have been found on a number of occasions and this problem is under investigation.

D. Miscellaneous

As usual there was an interesting variety of minor problems. Typical examples are:- Clostridium Welchii Type E in rabbits, S.typhi murium infection in rabbits and pigeons, Vitamin D. deficiency in cygnets.

Poultry Vaccines

These continue to be prepared and issued locally. There has been some falling off in demand during the past 12 months, partly because the continued absence of Newcastle Disease renders vaccination largely unnecessary. It is proposed to discontinue this vaccine during 1967. Comparative statistics for the past three years are:-

	1964	1965	1966
Fowl Pox Vaccine	106,000	302,300	293,800
Pigeon Pox "	32,000	166,000	124,000
Newcastle	43,000	142,200	111,700
Total	181,000	610,500	529,500

Artificial Insemination in Cattle

This service has increased steadily during the year and the use of imported deep-frozen semen has proved popular. Approximately 40% of the national herd is now being covered by A.I. Comparative statistics are:-

Total../..

Total Services

	1964	1965	1966
Fresh Semen	155	578	947
Imported Semen	-	149	823
Total	155	727	1770

The "break down" for 1966 is:-

Original Services	-	1150
First Repeats	-	420
Second Repears	-	145
Third Repeats	-	38
Third and later Repeats	-	17
		1770

An analysis of the original services given:-

	Single Services	Services Repeated	Total
Fresh Semen	371	199	570
Imported "	359	221	580
Total	730	420	1150

Thus:-

Conception to first service with fresh Semen was 65%.

Conception to first service with Frozen Semen was 62%.

Overall conception rate to first service was 63½%.

Our fresh Semen is used within 48 hours at a dilution of 1/4 to 1/5, while the imported Semen is not only frozen but diluted at a rate of about 1/50. Under these conditions the conception rate for the imported Semen is satisfactory.

Local../..

Local fresh semen is from Friesian bulls; imported semen is roughly 2/3 Friesian and 1/3 Ayreshire.

The first calves to imported semen were born in June, 1966, and have already created a very favourable impression locally. More important, they have stimulated a healthy interest in better methods of calf rearing.

Only one trained Inseminator has been made available to carry out this work including the collection and dilution of fresh semen. Working seven days a week, it is greatly to his credit that there has so far been no serious break-down in the A.I. Service.

Animal Husbandry

A. Poultry

Malta is now self supporting both in eggs and in poultry meat. In fact the main problem afflicting the industry is not disease control but how to dispose of its products. Broiler production is still profitable but most of last year's eggs were sold at cost price or even lower. It seems inevitable that a degree of "jungle law" will supervene during 1967.

B. Cattle

Despite a strong prejudice here in favour of tinned milk, the local dairy industry has expanded steadily over the past ten years and is now around 6000 head. The tendency is for a smaller number of herdsmen with larger herds. The amount of fresh milk sold has now increased to about 60% of the total liquid milk consumed in Malta. This must to some extent set a limit to future expansion and also to the number of bull calves likely to be available for local fresh beef production. A second limiting factor lies in the quantity of roughage which can be grown locally. This was shown very clearly after the scanty rainfall of last winter.

Slaughtering../..

Slaughterings statistics for the past ten years have been:-

Year	Local Bulls	Imported Bulls
1957	693	12,862
1958	776	13,147
1959	749	11,611
1960	1036	10,856
1961	1865	8,483
1962	1259	9,742
1963	1264	8,070
1964	1175	7,830
1965	1438	6,812
1966	1513	5,917

(Local bulls are estimated at 600 lbs.dead weight)
(Imported bulls are estimated at 515 lbs.dead weight)

These statistics show a very satisfactory trend. Malta is apparently consuming rather less beef than 10 years ago prbably due to the recent rapid growth of the poultry industry. Imports of beef on the hoof with their attendant danger from Foot and Mouth Disease have been cut by half and further reductions seem probable.

C. Pigs

1966 has been a favourable year for the industry, partly as a result of the Sorghum Scheme. The Malta Bacon Factory slaughtered 5100 head in 1966 compared with 1900 for the previous year. Pork slaughtering at the Abattoir was well above average also at 36,239 head, making a total of 42,339 pigs sold for meat. This is almost the highest figure on record.

Locally produced pork and bacon have been found acceptable by U.K. standards and competitive in price. It would seem that pig production is the only branch of the livestock industry which may possibly develop a sound export market. If this happens pig rearing will be freed from the danger of over-production in a small market and future development becomes difficult to predict.

General../..

General

Two new rooms have been added to the Diagnostic Laboratory at the Abattoir and a small animal house is in the process of adaption.

Visitors to Malta during 1966 were Dr.W.Moulton of the F.A.O., Dr.Mitchell who arrived in connection with the Sorghum Scheme and Mr A.D.Forteath, M.R.C.V.S. of the Milk Marketing Board, United Kingdom.

CHAPTER V
HORTICULTURE SECTION

General

All the officers of the Section were housed in new office block near the glasshouses which also includes a Packing and Potting Shed. Mr R.Siddall joined the staff in October under the UNDP as glasshouse Specialist.

Advisory Work

As in previous years the main line of activity was glasshouse tomatoes; however, advice was given to growers on various other crops such as strawberries,beans, peppers, mushrooms, flowers, etc. In order to increase both the number of tomato exporters as well as the quantity of export quality fruit various glasshouse growers were supplied with seeds, plants or sterilized soil; demonstrations were also given at the Government Farm or on the growers' own holdings.

Experimental Work

I. Cambridge Alumabrite Glasshouse (Heated)

This year the whole area of this glasshouse was steam sterilized, after which the soil was flooded for which operation 9,000 gallons of water were used.

The base fertilizer applied was: 56 lbs Hoof and Horn, 56 lbs. Sulphate of Potash and 23 lbs.Superphosphate per 1200 ft. of planting trench. 6 bales of peat (i.e. ½ bale per 100 ft. row) were incorporated. After rotovating in the fertilizers and peat, the trenches were soaked and the following day the banks were prepared.

Propagation

(Tomato Variety Fountain Cross) - Sowing was carried out on the 23rd August 1965 in a 50:50 mixture of peat and soil, (in boxes measuring 13" x 20" x 3½" sowing 400 seeds per box the sowing mixture being 1 box soil plus 1 box peat plus 1 oz. superphosphate). The seedlings were pricked out on the 30th August into a 50:50 potting compost in Hartman pots (1 box soil plus 1 box peat plus 2 oz. J.I. Base).

Planting../..

Planting.

Planting at 12 inch spacing took place in September, 1965, this crop of 950 plants being grown on a commercial basis.

Feeding

Liquid and dry feeds were applied depending on plant requirements. Liquid feed was applied with every application of water commencing 5th October, 1965 until the 6th December when the high potash liquid feed was helped by the application of either Fisons No.1 or 2 at approximately 10 day intervals. The latter combination continued to be applied for 1 month after which feeding consisted of solid fertilizers.

Water

Water was applied at varying rates, depending on climatic conditions and plant requirements.

Sprayings

Insecticidal and fungicidal sprays were applied during the first 2 months after planting out.

Cropping

Harvesting commenced on the 23rd December,1965 and the last picking was on the 1st July, 1966.

The total yield was 3362 rotoli 20 ozs.giving an approximate yield per plant of 3 rotoli 16 ozs.

During the entire cropping season grading of all fruit was carried out and the final figures of the respective grades were as follows in rotoli and ozs.:

Pink	Pink & White	Pink & White Cross	White	Blue
209-14	1532-25	1070-11	422-19	127-11

The total amount of rejects amounted to 42 rotoli 24 ozs.

II. Trough../..

II. Trough House (unheated)

One of the new Guernsey glasshouses was converted to this new method of cultivation, a technique which has been imported from Guernsey. Essentially this trough culture consists of growing crops in polythene-lined asbestos troughs which have the advantage of having a controlled growing medium perfect drainage and low sterilization coats. Consequently 3½" wide and about 10" deep troughs were constructed with 'V' shaped base at the bottom of which were placed asbestos pipes to facilitate drainage after they had been lined with polythene. The troughs were filled with sifted soil and then sterilized by inserting the steam hose through the drainage holes.

As base fertilizers 1 cwt. Sulphate of Potash, 1 cwt. of Superphosphate and ½ cwt. of Hoof and Horn (and also 7½ bales of peat) were applied per 5 double troughs x 100 ft. run.

The tomato seed (variety Fountain X) was sown on the 3rd November, 1965 and pricked out on the 15th November. The house (960 plants) was then planted out on the 17th December, (sowing and potting mixture being the same as those at I).

The plants were kept on a high potash liquid feed during the first 3 weeks after planting and then fed with Fisons No.1 or 2 at approximately 10 day intervals.

The first pricking was on the 29th March, 1966 and the last on the 15th July.

Because of the lateness in planting the plants were stopped after the 8th truss.

The total weight of fruit was 2874 rotoli 27 ozs. and was graded as follows (in rotoli and ozs.):

Pink	Pink & White	Pink & White Cross	White	Blue
239-25	1687-27	721-23	152-27	62-15

This gave an average yield per plant of approximately 3 rotoli.

III../..

III. Section A of another new Guernsey glasshouse was dedicated to a trial of the following 4 tomato varieties supplied gratis by a Dutch firm:-

a) 7155 Tomato F1 Hybrid Primresist S.B.
b) 7150 " F1 Hybrid Mesresist S.B.
c) 7160 " F1 Hybrid Ailresist S.B.
d) 7164 " F1 Hybrid Globeresist S.B.

Seed was sown on the 27th October 1965, the seedlings pricked off on the 9th November and planting at one foot spacing was carried out on the 10th December. The trial consisted of 480 plants which were divided into 3 blocks. Each variety was assigned a plot within each block at random; however, each plot in each of the two blocks at the fronts of the house contained 48 plants while each plot in the middle block contained 25 plants. Base and top dressings followed the general pattern of II. The first picking was on the 8th March 1966 and the last on the 16th July.

Final results of total yield and grading in rotoli and ozs. were as follows:

	A	B	C	D
Block I	220-0½	193-25	219-13½	230-5
Block II	102-21	81-3	105-25	100-7
Block III	241-24	223-18	243-1	213-26
Total	564-15½	498-16	568-9½	544-8

Pink	23-2	9-9	29-12	11-12
Pink & W.	263-16	206-13	276-10	211-15
Pink & W.X	230-6½	241-3	209-5½	262-3
White	39-6	33-17	41-6	47-2
Blue	8-15	8-4	12-6	12-6

Varieties 7155 and 7160 were consistently rougher than 7164 and 7150. Furthermore two separate plots of variety 7160 showed a very high percentage of plants affected by virus. Although 7164 was the 3rd heaviest in yield it was definitely the best quality of the four varieties, and though 7150 was the lowest in yield it was second best in quality.

IV../..

IV. Section B of this same glasshouse (unheated) was divided into 12 plots and each planted with either Money Maker Seed (Guernsey seed) or locally saved Fountain Cross.

Seed was sown on the 27th October 1965, the seedlings pricked out on the 9th November and planted out on the 10th December. Total number of plants was 480 i.e. 240 for each variety. The first picking was on the 8th of March and the last on the 16th July 1966; however the records showed that Money Maker definitely gave a heavier early yield. This confirmed our opinion that Fountain Cross tends to bulk up rather later.

Final weight in rotoli and ozs. and grading were as follows:-

Money Maker		Fountain X	
Plots 14,15,17.	532-1	Plots 13,16,18.	470-27
Plots 19,22,23.	479-17	Plots 20,21,24.	506-12
Total	1011-18	Total	977-9

	Pink	Pink and White	Pink and White X	White	Blue
Money Maker	27-23	456-8	435-6	71-19	20-18
Local Fountain X	180-13	498-24	231-13	47-21	18-28

V. Hydroponics:

This year this heated glasshouse was again planted with tomatoes (variety Fountain X). Seed was sown on the 18th October 1965 and the seedlings were pricked out into vermi-pest on the 31st October. Planting out (450 plants) was carried out on the 13th December, 1965.

Picking started on the 3rd March, 1966, and finished on the 21st June. The total yield of 1197 Rotoli 5 ozs. graded as follows:-

Pink	Pink & White	Pink & White Cross	White	Blue
593-13	464-27	100-15	27-2	11-8

As in the previous year sowing, planting, training, picking and recording were carried out by the Horticulture Section whilst feeding was under charge of the Agricultural Chemist.

During../..

During the growing season the plants showed many symptoms of deficiency diseases; they were even affected by root rot troubles. Experience has shown us that this system of cultivation has actually been a white elephant; consequently we have now given it up.

The period of tomato exports to U.K. started on the 30th December 1965 and continued till the 28th April, 1966, during which time 28 consignments were exported consisting of 369 six pounders giving a total net weight of 2214 lbs of fruits. Prices ranged from 3/- to 4/- per lb. in December 1965 and January, 1966, 3/6 - 7/- in February 1966 and 4/- to 5/- in March 1966.

VI. One half of the third new Guernsey glasshouse was planted with Gerbera Jamesonii on the 25th January, 1966. 6 cwts stable manure (and 1 bale of coarse peat) and 2 ozs. per sq.yard J.I. base were applied as base fertilizers. These original 300 plants were obtained as already established plants in Hartman pots and were planted out 1 ft. apart in staggered rows in beds. They started to bloom in April.

The next batch of plants, which were obtained from seed, was planted out on the 9th May.

A trial consignment was exported to Covent Garden on the 12th May and the blooms fetched 9d each. Since that time we have continued to export Gerberas regularly and an average price of 10d per bloom has been realized

VII. The other half of this glasshouse was planted with Irises (variety Wedgewood) - planting commenced on the 27th October 1965 and was completed on the 6th November.

12,000 bulbs were planted (whole area including paths being 23' x 50') - half at 2½" and the other half at 3" x 3"

56 lbs. J.I. Base were applied pre-planting per 10 rows by 50 ft. By the end of March, 10,055 blocks had been picked out of which 8076 were exported fetching approximately 4d each.

VIII. Cucumber glasshouse (heated)

Seed of two varieties (Telegraph & B.D.R.) was sown in 2 30:50 mixture in pots on the 9th September 1965.

The seeds../..

The seeds germinated on the 14th and planting out (18" spacing) was carried out on the 5th October. 36 plants of each variety were planted.

The base fertilizer applied was 8 wheel barrows of stable manure (and ½ bale of peat) and 12 lbs John Innes Base to both trenches on either side of the house. Trenches only were steam sterilized this year.

During the first 3 months the plants were watered with a high potash feed. From the 27th November till the end of cropping, dried blood was applied at approximately 2 week intervals at the rate of 1 oz. per yard run of bed.

Karathene spray at 10 day intervals was used against mildew.

Picking started on the 6th December, 1965 and continued till the 12th April, 1966.

Final yields in rotoli and ozs. were as follows:-

	Large Size		Medium Size		Small Size		Total	
	No. of Fruits	Wt.	No.	Wt.	No.	Wt.	No.	Wt.
Telegraph	596	372-19	522	228-10	232	71-22	1350	672-21
B.D.R.	485	303-11	552	235-11	293	87-10	1330	626-2

II. Pratten Glasshouses (cold)

These 3 small glasshouses were steam sterilized and coarse peat at the rate of 1 bucket per 2 yd. run of bed was applied. 4½ lbs. J.I. Base was applied to each house as base fertilizer Bell pepper seed (variety California Wonder) was sown on the 16th August 1965, the seedlings pricked out on the 20th September and 50 plants per house were planted out 18" apart on the 27th October 1965.

There were only 3 pickings as the table shows, the disadvantages of this crop being that the first picking gives you good sized, export quality fruits but from then onwards the fruit size begins to deteriorate.

However, on the first two picking dates trial

consignments../..

consignments were exported to Covent Garden and the fruits fetched 3/6 per lb.

	No. of fruit	Weight Rot.	Ozs.
8th February	147	21 -	5
2nd March	581	69 -	0
2nd May	176	17 -	28
Total	904	108 -	3

CHAPTER VI

PLANTATIONS, PUBLIC GARDENS AND NURSERIES SECTION

SAN ANTON PUBLIC GARDENS

The glasshouses were reinstated and suitable ventilators and bamboo curtains provided. This was badly needed and has been found very helpful for the raising and propagation of such plants as Nephrolepis, Farfugium, Adiantum, etc., which are very useful for decorative purposes.

The glass-roofed shed was also reinstated. It serves for placing on show such plants as Petunia, Geraniums, Pelargoniums, Schizanthus, etc. These plants remain in bloom for quite a long time and are very much appreciated by the Public.

Cultivation

The work of planting, re-arranging, digging and manuring the many beds and borders continued. The orange groves received attention and decorative trees were pruned and shaped.

Floral Displays

Displays of flowers were maintained practically throughout the year. The flowers cultivated include:- Petunia Stocks, Cinerania, Antirrhinum, Godetia, Schiazanthus, Calendula, Dahlias, Tagetes, Gomphrena, etc.

Swans

The swans which adorn the large pond in the centre of the Gardens continued to be a great attraction.

Buskett Gardens

The maintenance of these rather extensive gardens received attention. As usual, Oxalis was the most troublesome weed in Winter and Spring; weeding had to be repeated several times.

The yield of citrus fruit was one of the best, both at Buskett and at San Anton Gardens.

Other../..

Other Gardens

The other gardens at Valletta, Floriana, Rabat, Gzira, Zejtun and Qormi were kept in good order throughout the year and planted with a view of creating a variety of colours. The bed and borders were gay with flowers.

The King George V Children's playground at Floriana was handed over to the Department for proper care and maintenance.

Other children's playgrounds at Tarxien, Sliema, Zejtun, Luqa and Zurrieq were laid out by the Public Works Department but the planting and maintenance of trees and shrubs is the concern of this Department.

The Number of traffic islands and road strips continues to increase.

Arbor Days

Two Arbor Days were held one at Santa Lucia and the other at Qormi. Well over one thousand school children attended on each occasion. Trees were planted by children. The Directors of Agriculture and Education addressed the children and explained the utility of trees.

Public Plantations

The planting of ornamental and shade trees along roads and open spaces in these Islands is a costly undertaking. The continuous damage caused to trees by vandals and by motor vehicles is considerable.

The following is a detailed list showing the variety of trees and bushes planted during the year:-

Jacaranda, Cupressus, Oleander, Ficus, Quercus, Palms, Tamarix, Myoporum, Rabinia, Morus, Olives, Pittosporum, Lantana, Fuonymus, Veronica, Phoenix, Coprosma, Leonotis, Popolus, Schinus, Pinus, Ailanthus, Ceritonia, Thuya, Gallitris, Certis, Acacia.

Nurseries../..

Nurseries

The work in the Nurseries received our utmost care and attention. The demand for trees and shrubs for the plantations and the replacement of the numerous trees, damaged or destroyed as well as that by the public for private gardens is increasing by leaps and bounds.

The following table shows the number of ornamental trees, shrubs, etc. supplied during the year from the Public Nurseries.

Jacaranda	40	Cupressus	155
Oleander	1650	Ficus	1300
Quercus	24	Palms	250
Tamarix	1770	Myoporum	360
Robinia	555	Morus	30
Olives	215	Olives	190
Pittosporum	695	Lantana	465
Ecominus	125	Veronica	42
Coprosma	20	Leonotis	38
Populus	60	Schinus	156
Pinus	200	Ailanthus	50
Ceritonia	26	Thuya	80
Gallitris	15	Cercis	275
Acacia	385		

San Anton and Verdala Private Gardens

His Excellency the Governor-General's Private Gardens at San Anton was kept in a very attractive condition. A display of flowers were maintained throughout the year, the lawn was regularly mown, rolled and kept in good order.

The necessary maintenance of the Verdala Park also received the attention it required.

Afforestation

Considering that the young trees are planted in pits cut in solid rock and that most of the sites are exposed to strong winds and may be lacking in adequate maintenance, their growth is considered satisfactory and beyond expectations.

CHAPTER VII
PLANT PROTECTION SECTION

1. General

The principal line of thought influencing Pest Control experiments during 1966 was the consideration of gradually reducing recommendations for use of residual Pesticides. This necessarily implied the thorough revision of the recommendations "finalised" in 1965, and a new set of recommendations is being published.

Two important items of legislation were finalized. The new Phytosanitary Bill was discussed with the Legal Officers, passed through all stages in Parliament, and published in November, 1966, its effective date of operation being January 15, 1967. The revised Pesticides Regulations were given their final legal drafting in association with the Medical and Health Department, and put up for publication early in 1967.

Following the attendance of the plant Pathologist and Entomologist at the FAO/IAEA International Course on the Use of Radioisotopes in Entomology, at the University of Florida, in late 1965, a full technical project for the possibilities of applying these techniques in the local Pest Control Field was prepared and submitted in mid-1966. During November, Dr.M.Feron of Montolive, France, spent a week in Malta in the capacity of Consultant, under the auspices of F.A.O. Meanwhile, preliminary steps towards the acquisition of equipment to commence initial studies were taken.

Mr E.F.Collingwood, B.Sc.(Agric.), N.D.A., took up his duties as Plant Pathologist under the F.A.O. Horticultural Project in October 1966. As a result of the doubling of professional staff, a much greater volume of experimental and diagnostic work was made possible.

2. Sectional

(a) Laboratory

New equipment was acquired, both from F.A.O. and U.K. Capital Development sources. Two new rooms were

acquired../..

acquired and are slowly being fitted out as a radio-biological unit, or as an additional annex for culture and breeding work.

New records during the year included the discovery of Cerambyx cardo L. in an Oak tree at San Anton. This species was first recorded in Malta in 1874 and not re-recorded since.

Laboratory trials with insecticides were carried out on the Tussock Moth, Orgyis tyigotephras var. Corrica stgr., and Mediterranean climbing cutworm, Spodoptera (Predenia) litura Fab. In both cases Malathien gave good to very good results, which, however, was not observed in field trials. During the last quarter of 1966, attempts at new laboratory trials against the latter pest were frustrated by the almost complete absence of this pest in the Island.

Several routine identifications of pests and diseases on infected plant material were performed in the laboratory. A small amount of culture work was also carried out.

(b) Field Trials

(i) Mediterranean Fruit Fly - Preliminary tests with Ethoate methyl (Fities 677) on Citrus and soft fruit have given satisfactory results though the maximum observed residual effect was under 3 weeks. Tests with Dimethoate on soft fruit gave equally satisfactory results and following a full scale trial in 1967, both chemicals are expected to be placed on the provisional recommendation list.

(ii) Wood-boring Insects - Another drop in the population level of the long-horned borer, Cerambys dux Fald. was noticeable. The population level has been dropping steadily since 1963, when general treatments against the adults was initiated on a wide scale, and the gradual uprooting and destruction of infested material was undertaken. A considerable amount of spraying was done during the 1966 season and the hopes expressed last year of slowly eradicating the species by a combination of chemical treatments and uprooting of uneconomic Pest-material are on the way to achieving fruition.

(iii)../..

(iii) Potato Tuber Moth - attacks varied from moderate to heavy during the 1966 spring, and the practical impossibility of enforcing control measures had let to the consideration of other means. A sterilisation programme is being studied and preliminary ecological work is expected to begin as soon as facilities become available.

(iv) Scale Insects - Preliminary trials with Etheate methyl showed promise on Citrus, particularly on Aonidiella aurantii Mast. Meanwhile there appears to be no sign of resistance to other organo-phosphates.

(v) Grape - Berry Moths - Ethoate methyl was also tried against Polychrosis botrana schiff and Polychrosis vittans clemens. Although results in preliminary pilot trials appeared to be satisfactory, factors beyond the control of the Section precluded a proper evaluation and the trials are being repeated in 1967.

(vi) Codling Moth - No new trials were held this year but the satisfactory residual effects of Dimethoate and Diazinen was again confirmed after widescale treatments.

(vii) Downy Mildew of Onions - a full-scale experimental programme with Mancazeb gave satisfactory results but constituted no noticeable improvement in effect c.. Zineb or Maneb. At present, Zineb, being the cheapest, affords the most economical form of control.

(viii) Vine - Mildew - Copper-sulphur mixtures continued to give good results against Plasopara vitieels (Downy Mildew) and Uncinula neoater (Powdery Mildew). The material has not, however, been officially recommended pending further trials.

(ix) Potato Blight - Infection of the Spring crop was again light to moderate. Some damage to the winter potato crop was caused but the main causative agent was the heavy rain which led to waterlogging and secondary rotting rather than blight. There was no change in chemicals used nor in recommended control measures.

(x) Glasshouse diseases - Both Leaf Mould (cladosperium fulvum) and late blight (Phytophthera infestans) were

present../..

present to a variable degree in unheated glasshouses. In the better-managed ones, both diseases were, as last year, practically non-existent.

Metham Sodium gave very poor results during the 1966 season and lack of suitable analytical facilities contributed to the difficulty in finding an adequate solution for the occurrence. Preliminary trials with sodium methyl isothiocyanate are being arranged for next season.

(c) Advisory Work

Several talks on Plant Protection were given to farmers and growers during Extension meetings. The following topics were discussed:-

1. Use of spraying machinery
2. Handling and application of Pesticides
3. House-fly control in livestock-quarters
4. Pests and diseases of Onions
5. Glasshouse pests and diseases
6. General Pest Control practice
7. Spraying Economics

Several broadcasts on Rediffusion, during the Farmers' Half Hour on Sundays, were also delivered.

Over 1000 farmers and growers were visited by members of the section's staff and given advice on Pest Control. About 300 farmers and growers were given advice at the Plant Protection office and Laboratory at Ghammieri. Advice on Pesticides was also given to Importers and Retailers.

(d) Contract Spraying

The following spraying and other work was carried out on behalf of farmers and growers during 1966. The figures quoted are inclusive of work performed in Departmental holdings. Figures in brackets refer to work performed in 1965.

Potatoes (Blight, Tuber Moth)	265 tumoli	(404)
Vines (Mildews, BerryMoth)	90 "	(133)

Miscellaneous ground crops	260 tumoli	(148)
Olives (Weevils, Scales)	4,000 trees	(12,000)
Citrus (Fruit Fly, Aphids, Scales)	15,000 "	(11,466)
Apples & Pears (Codling Moth, Scab, weed-borers)	7,500 "	(5,915)
Miscellaneous Fruit and Ornamentals	1,200 "	(926)
Pruning and Grafting	1,600 "	(1,400)
Soil Sterilisation	30 Greenhouses	(26)

Once again, the bulk of operarions performed for third parties (i.e. other than in Departmental Holdings) was in home gardens but requests from actual farmers were very limited.

(e) Phytosanitary Branch

The following consignments were examined for the presence of pests and diseases during the period under review:

A. Imports

(1) Fruit

Apples	160,796 parcels
Apricots	378 "
Bananas	82,493 "
Cherries	944 "
Grapefruit	2,647 "
Lemons	1,170 "
Pears	44,421 "
Peaches	2,816 "
Plums	130 "
Oranges	103,089 "
Tangerines	4,561 "
	403,445 parcels

(2) Vegetables

Seed Potatoes	74,900 parcels
Ware Potatoes	37,352 "
Garlic	1,700 "
Swedes	440 "
Celery	200 "
Brussels Sprouts	40 "
	114,632 parcels

Ornamentals../..

(3) Ornamentals:

Flower Bulbs	2,394	parcels
Flower Seed	365	"
Cut Flowers	160	"
Cuttings	4,153	"
	7,072	parcels

(4) Live plants:

B. Exports:

Ware potatoes	417,420	parcels
Onions	88,434	"
Globe Artichokes	1,109	"
Carnation Cuttings	1,113	"
Chrysanthemum Cuttings	8,925	"
Vegetable Seed	39	"
Cut Flowers	53	"
Live Plants	110	"
Oranges	105	"
Lemons	5	"
Tomatoes	45	"
French Beans	86	"
Mushrooms	118	"
Strawberries	40	"
Prickly Pears	10	"
	517,612	parcels

CHAPTER VIII
THE MARKETING SECTION

Introduction

The main activities of the section comprise the following:-

1. The supervision of the wholesale Pitkali Markets.
2. The running of the Agricultural Produce Inspection Shed.
3. The recommending of licences to the Department of Trade for the import and export of Agricultural Products.
4. The issuing of permits for the distribution of locally milled wheat offals and manure.
5. Control price inspection of fresh fruit, vegetables, eggs and meat at the retail level.
6. The collection of price statistics of Agricultural products and of general statistical data.

Vegetables

a) Potatoes are extensively grown in Malta and Gozo to meet both the local market demand and for export.

Every year some 4,000 tons of seed potatoes, chiefly Arran Banner, Alpha and some Craigs Royal, are sown in Malta and Gozo in the months of November and December.

By the following April the tubers mature and export season commences.

In 1966, 10,435 tons of Spring Potatoes valued at £466,986 were exported. Of this quantity 2,848 tons 10 cwts. 2 qrs. were exported to the United Kingdom 7,015 tons 1 cwt to Holland and 571 tons 18 cwts. 2 qrs. to Sweden.

The potatoes are generally exported in new jute bags but, during the year under review, the Malta Union of Farmers again sent some consignments of potatoes packed in peat moss in 25 kilo wooden boxes. The number of boxes was 5,028 equivalent to nearly 125.7 tons.

To further encourage the export of potatoes in peat moss, the Department gave a small incentive grant of 1/6 per box.

b) Onions../..

b) Onions are the second largest item of Agricultural export. During 1966, 4,421 tons 7 cwts. were exported valued at £154,013. Of this quantity 3,844 tons 9 cwts. 2 qrs. were exported to United Kingdom, 576 tons 17 cwts. to Holland and a sample consignment of 2 qrs. to Sweden.

Most of the seed is grown locally but foreign seed is also imported.

Two main varieties of onions are grown; one to cater for the local market, the other mainly for export. The local market prefers the round pink type and the foreign market is generally met by exporting the round yellow flat top type.

This variety is mainly grown on relatively dry land, mostly in the Eastern and Southern districts.

c) Tomatoes. Progress in tomato growing has been such that nowadays tomatoes are grown all the year round.

Out-of-season glasshouse tomatoes have become so abundant that besides satisfying the local markets, ever larger quantities are being exported to the United Kingdom.

To enable farmers to grow out-of-season tomatoes, the Department has given and is still giving loans and grants for the erection of glasshouses.

During the year under review not only not a single tomato had been imported but 50,011 kilos of glasshouse tomatoes, valued £26,583, were exported to the United Kingdom as compared with 8,540 kilos, valued £5,063, in 1965.

d) Other Vegetables

Hardly any fresh vegetables are imported. All local requirements are met from the local production.

The principal vegetables grown are:- Artichokes (both globe and Jerusalem) Broad Beans, Cabbages,

Carrots../..

Carrots, Cauliflowers, Cucumbers, Kohlrabi, Lettuce, Long Marrows, Vegetable Marrows, Peas and Pumpkins.

e) Fruit

All kinds of fruit are grown, the most important being apples, cherry plums, figs, melon-water, melons-winter, melons-sugar, oranges, peaches and strawberries.

However, the demand for fruit is so great that considerable quantities of fruit are imported every year mainly from Italy.

To lengthen the fruit season as much as possible and thus do away with a part of the imports, the Department has imported and is still importing thousands of early and late fruit trees and selling them to farmers.

f) Cereals

Wheat, Barley, Vetches, Forages, Dry Broad, Beans and Locust Beans are grown in relevant quantities but imports remain the chief source of supply.

g) Eggs

Malta has virtually become self-supporting in fresh produced eggs.

Pitakli Marketing Centres

Agricultural products are mainly put on the market through wholesale Marketing Centres (Pitkalis) and Co-operative Societies.

The number of pitakli is 32 in Malta and 4 in Gozo; while the Co-operatives have 6 centres all in Malta.

The pitkali run their business in the places as indicated below:-

Malta../..

MALTA		GOZO
7	established at Birkirkara	4 established at Victoria
5	" at Marsa	
2	" at Mosta	
5	" at Rabat	
3	" at Zebbug	
10	" at Marina-Valletta	
32		

Co-operatives

There are marketing Co-operatives in each of the following centres:-

Marsa - Birkirkara - Rabat - Siggiewi
Zebbug - Marina-Valletta.

With the exception of the pitkali at Marina, (Valletta) and Victoria (Gozo), pitkali run their business under the supervision of a Departmental Official, appointed for the purpose.

Exports 1966

Potatoes were the chief Agricultural produce exported.

The quantity of Spring Potatoes exported during the year under review was 10,435 tons 10 cwts. valued at £466,986.

Onions

Onions are also exported in considerable quantities. In 1966, 4,421 tons 7 cwts. of dry onions were exported valued at £154,013.

Cut-Flowers, Plant Cuttings, Seeds and Bulbs

Cut flowers, plant cuttings, seeds and bulbs are also exported in considerable quantities.

The value of these exports during 1966 amounted to £247,104 as compared with £229,357 in 1965.

The trade is in the hands of experienced businessmen and progress was maintained. There

is../..

is every indication that the export of cut flowers and plant cuttings is on the increase.

Eggs in the Shell

The export of eggs in the shell which in 1965 was 48,650 dozen increased in 1966 to 263,306 dozen valued at £39,313.

It is hoped that with the opening of the Maltese Embassy in Libya, better contact with prospective Libyan importers will be made and our export of eggs to that country will increase.

Fresh Tomatoes

The quantity of fresh tomatoes exported by air to the United Kingdom during 1966 was 50,011 kilos valued £26,583 as compared with 8,540 kilos valued £5,063 in 1965.

It is hoped that with the coming into force of the Tomato Export Regulations, the export of this produce would increase further.

Other Agricultural Produce

During the year under review small quantities of English Strawberries, French Beans and Lettuce were exported. There is every probability that in the coming years the export of the those three items will continue to increase.

Live Animals including Sheep, Goats, Hens and Day Old Broilers

Licences for the export of 464 sheep, 523 goats, 4,104 hens and 228,530 day-old Broilers, hatched in Malta, have been recommended to the Department of Trade.

The value of this export under the name of "Live Animals" amounted to £23,154.

Imports../..

Imports

Steps are constantly being taken with a view to limit the outflow of money on the purchase of imports. However, the total value of the fresh fruit imported during 1966 was £710,334 as compared with £517,588 in 1965.

Frozen Poultry

During the year under review only 158,370 kilos valued at £48,873 were exported as compared with 304,758 kilos valued at £76,060 in 1965.

The importation of Frozen Ducks and Turkeys for 1966 was restricted on the basis of imports for the previous year. This is aimed at encouraging local breeding.

Fodder

Fodder is another item which is imported in large quantities. The value of fodder imports in 1966 was £821,612.

However, 144 tons of fodder manufactured locally into balanced food were exported to Tripoli and Benghazi.

Seed Potatoes

In 1966, 3,750 tons 10 cwts. of seed potatoes were imported. Of this total 58 tons 4 cwts., left unsold, were re-exported to Tripoli.

The varieties imported were Arran Banner, Alpha, Craigs Royal and Sintje.

Fertilizers

Fertilizers are imported in sizeable quantities. The value of these imports in 1966 was £36,394.

Licences

All import and export licences regarding Agricultural products and other items of Agricultural interest are submitted with recommendation or otherwise to the Department of Trade.

Permits../..

Permits

Every Friday morning the Secretary of the Malta Millers Association gives the relevant information regarding the wheat offals supply position for the ensuing week.

The balance, after deducting Gozo's allocation, is distributed by means of permits to licensed retailers, registered breeders, manufacturers and co-operative societies according to their requirements after the supply position is taken into account.

In 1966, 69,950 qantars Pollard and 70,400 qantars Bran were distributed.

During the year under review the checking of breeders was taken in hand by the Agricultural Officers.

Out of 537 breeders, 346 have been inspected and their weekly allocations of Bran and Pollard was revised and a fresh quota recommended.

Manure permits were issued for 1,077 truckloads and 5,385 tons were distributed.

Inspections

Agricultural Inspectors make regular inspections on retailers of fresh fruit and vegetables in various parts of the Island for the purpose of ensuring that the provisions of the Agricultural Produce (Marketing) Regulations 1952 are complied with.

Butcher shops are also inspected for the purpose of checking on the price of fresh meat.

Statistical Information

Inspectors also collect retail prices of fresh fruits, vegetables and meat for statistical and other purposes.

As in previous years help was extended to the Central Office of Statistics in connexion with the

yearly../..

yearly Census of Agriculture for 1965/66.

Boards and Committees

The Fresh Fruit, Vegetables and Fish Advisory Board for 1966 met seven times.

During 1966 the Pig Advisory Committee was reconvened and met nine times.

The Potato Export Group to study various matters regarding the marketing of potatoes for export was also appointed and met nine times.

CHAPTER IX

GOVERNMENT EXPERIMENTAL FARM SECTION

Introduction

The objects of the Government Experimental Farm are primarily:-

a) to serve as a demonstration unit to farmers and all others interested in the scientific management of livestock and crops;

b) to supply the farmers and others with quality breeding stock in both the livestock and crop husbandry aspects;

During the year under review, these two objects were successfully achieved and it should be recorded that the number of farmers visiting the farm continued on the upward trend.

A number of improvements and innovations of general interest to farmers was carried out in all sections of the Government Farm. Besides, modern feeding techniques, disease control, crop spraying methods, livestock rearing, glasshouse cultivation of flowers all helped to attract more farmers to the Government Farm.

The procedures to supply the farmer with quality breeding stock from the Government Farm enabled the Department to improve our National Pig, Dairy and Goat Herds, helped to introduce new breeds and new strains of rabbits used in the commercial production of rabbit meat; helped also in the spreading of new varieties of crops through the sale of plants and seeds.

So much so, it is felt that now, more than ever before, the Government Farm is being looked upon as the centre to which farmers from all over the Island should refer for all their requirements and technical problems.

Cattle Section

In spite of all its limitations, demonstrations and trials were carried out with the dairy herd which

is../..

is predominantly Freisian.

Scientific feeding of the cows based on the Maintenance and Production feeding combined to secure as a demonstration to our herdsmen.

An early weaning observation study on calves using calf milk replacer and calf pencils, was carried out during the year under review. This experiment, which proved beyond doubt the economical advantages of early weaning, was very successful and hundreds of herdsmen called at the Farm to see and compare results for themselves.

A series of T.B. and Brucellosis Tests was carried out during the year under review and the herd was declared free from both by the Veterinary Surgeon. To further improve the progeny of our herd nominated deep freeze semen, imported from U.K., was used.

During the year under review, a weekly record of the individual butter-fat content of our herd was kept. This is being done for two purposes, primarily to be able to show the herdsmen how he can select his replacements and secondly to prove that butter-fat content of milk can be improved upon both genetically and through proper feeding methods.

Milk produced during the year under review was again delivered to the Milk Marketing Undertaking for human consumption and the following table gives the monthly delivery:

Month	Quantity of Milk in Lbs.
January	10,993
February	9,563
March	10,067
April	11,209
May	10,588
June	7,599
July	6,671
August	7,612

September../..

.. ..

September	8,330
October	10,153
November	10,827
December	12,441

The number of births during the year under review was:-

5 Heifers 8 Bulls

Caprine Section

A small herd of pure Saanen Goats was maintained at the Government Farm with the primary object of supplying herdsmen with billy kids which are later used to cross with the Malta breed of goat. This Saanen/Malta goat cross proved very successful as the progeny is normally of a better conformation and, at the same time, the milk yield is improved.

Privately owned local goats were still mated free of charge at the Government Farm.

During the year under review, 25 male and 18 female kids were born of which 18 male kids, 2 female kids and 2 billy goats were sold to bona-fide goat keepers.

An observation study on the mating of goats out of season was started late in the year. The object of the study was to see whether it is economical to produce goats' milk out of season. The quantity of goats' milk sold to the Milk Marketing Undertaking was 13,536 lbs.

Swine Section

The purpose of the swine section at the Government Farm is to maintain a herd of Pedigree Large White Breed in order to be able to supply breeding stock to local farmers.

As a normal procedure, all stock at the Government Farm is vaccinated against swine fever and swine erysipelas. Replacement of breeding stock for the Government Farm is selected from litters having weaned eight or more piglets, and having attained a weaning

weight../..

weight of not less than 35 lbs at 8 weeks. All other available stock is sold to pig farmers for fattening.

To conform with Departmental policy of popularising Sorghum, a feeding trial, making use of this new commodity was carried out during the year under review. Three groups of pigs with 5 weaners in each group were selected at random and marked A, B and C.

Each respective group was fed a different rate of Sorghum in the ration, i.e. 10%, 15% and 25% sorghum.

The onject of this trial was to find out whether, under local conditions, yellow sorghum would have any deleterious effect on the quantity of the pig produced for bacon. All pigs in the respective groups were fattened up to bacon weight and slaughtered at the Bacon Factory where they were all graded 'A'.

A super creep feed trial was also conducted with the object of confirming and demonstrating to local pig farmers the need of a good quality creep feed in order to obtain a good weaning weight.

During 1966 the pigs, shown in the table below, were sold to pig farmers all over the Island:-

Month 1966	Birth	Sows	Weaners	Gilts	Young Boars	Boars
January	68	4	13	1	1	-
February	25	2	42	5	8	1
March	17	1	22	-	-	1
April	97	-	2	-	-	-
May	65	2	11	-	-	-
June	29	-	35	-	1	-
July	60	5	29	9	-	-
August	85	-	36	-	4	1
September	71	-	17	-	-	-
October	88	3	62	3	3	1
November	109	-	51	-	-	-
December	73	1	6	-	-	-
Totals	787	18	326	18	17	4

In view../..

In view of the financial assistance on modern Pig Husbandry which the Department envisages to extend to pig farmers, a new complete 20 sow pig unit is being erected at the Government Farm for demonstration purposes.

Poultry Section

The activities of this section during the year under review were more or less the same as for previous years.

The hatching of the sex-linked Rhode Island Red x Light Sussex chicks was carried out and the ducks sold through the Government contractor. Fertility and hatchability were both excellent averaging between 89 to 92 and 83 to 84 per cent respectively.

A feeding and laying trial with four different types of hybrids was carried out. The four hybrids were:-

1. Shaver Starcross 288
2. Harco
3. Double A 1
4. Thornbers

These pullets were brooded in the Ascot chick battery and later transferred to the laying cages.

The usual records of mortality, feed consumption egg size and production were kept but no further details can be given as the experiment was still in progress at the end of the year.

Turkeys and Ducks

The breeds of turkeys and ducks kept were the Broad Breasted White Turkeys and the Alysbury Ducks.

The B.B.W. Turkey has now proved itself to be the most popular amongst our breeders and throughout the year the Alysbury Duck confirmed itself to be a very efficient breed under local condtions and it was found to be very fast growing and to produce an excellent carcase.

All../..

All available surplus stock was sold besides a large quantity of turkey eggs to turkey farmers.

So far the demand for Duck's hatching eggs has been very limited.

Rabbitry

The demand for breeding rabbits from this Section continued to increase and, in spite of the fact that a substantial amount of expansion was carried out, there is still a long list of applicants to purchase breeding rabbits.

In addition to the two old breeds, the New Zealand White and Flemish Giant, a third breed, namely: the Californian which is considered to give a carcase with a high meat to bone ratio, was introduced.

Rabbit Stud Centres

Besides the Stud Centre at the Government Farm, two other Centres are in operation on private farms, one at Qrendi and the other at Pieta. The breeds at these centres are continuously being replaced in order to meet the demand.

Floriculture

Encouraged by the success of the previous year, another carnation house was erected and a collection of six different varieties of carnation was imported from France. These varieties, namely Scancia, Desire', Colorado, Laddie, Clear Yellow and Portrait, were put in pots and later transplanted in separate rows, two hundred and seventy plants in each bed, at a distance of 6 inches, centre to centre.

In spite of an attack by red spider mite, the carnation houses gave excellent results.

A new glasshouse for the growing of "Strelitizia Riginae" (Bird of Paradise) was erected by the farm carpenters.

A fourth glasshouse was constructed for experimenting with roses. 230 rose-bushes of the "Baccara" variety were planted to see whether they would produce good blooms out-of-season for export.

180 young plants of "Asparagus Plumosus" were planted as practiced on the Italian Riviera. The object was to demonstrate their growing for ornamental leaves and for the production of seeds. These plants are covered with cane blinds to provide them with adequate shade.

Horticulture

The Policy of the Horticultural Section is:

a) to grow an adequate amount of fodder for Government Farm livestock;
b) to carry out field trials;
c) to grow seedlings for sale to farmers and amateur gardeners.

In view of the relevant quantities of fodder required to feed the livestock, kept on the farm, a good proportion of the farm land at the Government Farm was devoted to the growing of fodder, mostly hay, lucerne and cereals.

The rest of the available land was dedicated to trials which were carried out with different varieties of potatoes whilst two varieties of tomatoes were grown for seed production and sold to the Malta Seeds Ltd. for export.

As in previous years, a large quantity of first class seedlings was sold to farmers.

CHAPTER X
VITICULTURE AND OENOLOGY SECTION

Progress in this Section may be classified under the following headings viz:-

i) Buskett Grape and Wine Station, expansion of;
ii) Sub-Stations;
iii) Rubble-walls Scheme.

There has been a noticeable expansion of the Buskett Grape and Wine Station, although this has taken place in lands not adjacent to the Station itself but within Buskett Gardens and hence within easy reach of the labour force available. This expansion was in two directions, firstly, the setting up of a "mother plant" rootstock nursery for the eventual production locally of rootstock thereby eliminating imports of rootlings from Sicily and secondly the setting-up of a "plant foundation material" nursery for the production of quality grafting wood for sale to bona-fide grape farmers. It is anticipated that by 1970, it will be possible to obtain all requirements in rootlings and that grafting wood of selected wine and table varieties of repute will be made available to applicants.

2. It may not be inopportune to mention at this stage the help and co-operation of the University of California which not only provided all the plant foundation material required but actually furnished this Station with all the new-brand grape varieties, namely, "Emerald Riesling", in the wine grape section, "Valcovia", in the table grape section and "Gold", which is a dual-purpose (wine and table) grape variety recently produced at Davis.

3. Three sub-stations were set-up during 1966, namely one at Bingemas, one at Wied Gerzuma and the third at Gnejna. Furthermore, two sub-stations planted in 1964 were grafted with varieties of wine and table grapes, namely one at Benghisa and the other at Siggiewi. While the Benghisa graftings were almost 100% successful, at Siggiewi, owing to the negligence of the owner of the sub-station, it was not possible to graft more than a small proportion of the rootstock originally planted.

4. In../..

4. In the Rubble-Walls scheme, thirteen plantings x 60 vines each were made. The localities chosen include Zejtun, Mosta, Tarxien, Marsaxlokk, Wied-il-Għajn, Rabat, Imsierah, Birkirkara, Zebbug, Siggiewi, etc. etc. with a view obviously of spreading distribution within as wide a radius as possible.

CHAPTER XI

LAND AND WATER USE SECTION

F.A.O. Conference in Malta

The Land and Water Use Section was responsible for the staging of the Second Session of the Working Party on Irrigation and Water Resources of the European Commission on Agriculture of the Food and Agriculture Organization. All the delegates from various European countries were very pleased with the Conference facilities and a letter from the Director-General of F.A.O. to the Prime Minister confirmed the fact that the Conference was a great success. The Conference which was inaugurated by the Hon.Dr.Joseph Spiteri, Minister of Trade, Industry and Agriculture was chaired by Mr A.Scicluna-Spiteri, Head of this Section and Mr E.A.G.Johnson C.B.S., Chief Engineer of the United Kingdom Ministry of Agriculture, Food and Fisheries. Mr Scicluna Spiteri presented his report on "The Use of Sewage Water for Irrigation". This report was so well received by all the delegates that F.A.O. was formally requested by the Conference to publish it in the interests of member countries. Mr Scicluna Spiteri was elected Vice-Chairman for the next session to be held in Belgium and member of the Steering Board. Mr Scicluna Spiteri attended the first Board meeting held in Malta and the second held in October in Rome.

Mulching Experiments with Black Polythene

Mulching experiments with black polythene were further conducted in various parts of the Island and the good results obtained in previous years were furt or confirmed. Several farmers have been persuaded to use black polythene on strawberries.

Dairy Cows Feeding Trial

A feeding trial was conducted on dairy cows with rations containing no beans in an effort to provide alternative rations when beans became scarce or too expensive. The results clearly indicated that so long as the rations contained the usual nutrition values, beans as such were not an essential ingredient and cows under local conditions of indoor feeding can easily do without them.

Construction../..

Construction of Water Reservoir

350 applications for assistance under the Government Loans and Grants Schemes were examined by the Agricultural Inspector in charge Water Use 45, applications were accepted.

Soil Preservation

The great number of new constructions and the accelerated speed with which they are being built has necessitated the addition of another Soil Inspector. Unfortunately another post for Agricultural Inspector, although urgently needed by this Section has been left vacant for a year.

Laboratory Facilities

Progress in the building of the Laboratory has been maintained and service for some soil analysis was initiated. It has been observed that salinity in glasshouses was becoming an alarming problem.

CHAPTER XII
FINANCIAL ASSISTANCE TO FARMERS AND FISHERMEN
LOANS AND GRANTS

General Scheme

The Loans and Grants Scheme of assistance to farmers and fishermen constitutes the largest scheme of assistance administered by the Department through the Loans Commission. Beneficiaries who intend to intensify their production and embark on modern projects both in agricultural and animal husbandry are generally assisted to the tune of 40% Grant and 60% Loan of the total sum involved. After satisfying the requirements set as basic qualifications such as acreage under cultivation, occupation and age of applicant, the Commission recommends financial assistance and the necessary approval is authorised by the Minister.

The following table shows the amount of Grants and Loans issued by the Department to successful applicants who received rotary cultivators and overhead irrigation equipment (agricultural machinery), glasshouses (horticulture) and poultry units (animal-husbandry).

Purpose	Grants	Loans
	£	£
Glasshouses	4,491	6,741
Rotary Cultivators	1,670	2,540
Poultry-Units	1,273	1,910
Overhead Irrigation Equipments	1,470	2,208
Polythene Cloches	441	662
Total	9,345	14,061

Apart from the general scheme for financial assistance currently administered by the Loans Commission, namely the general scheme for assistance to farmers and fishermen, there are also two other schemes of assistance in virtue of Act II of 1956.

The../..

The Improvements to Farmhouses Scheme envisages the encouragement and incentive to local farmers to undertake repairs and reconstruction of their farmhouses. It contemplates three main types of projects, viz: (i) Repair and construction of water reservoirs; (ii) extension of water and electricity mains to farmhouses and (iii) general structural repairs and extensions to farmhouses.

The assistance offered under this scheme is in the form of 60% Loan repayable within five years at 6% interest and 40% Grant. The table set below indicates the amount expended during the year ended 31st December, 1966.

Purpose	Grants	Loans
Improvements to Farmhouses	£	£
Extension of Electricity Mains	483	726
Extension of Water Mains	134	204
Repairs/Construction of Water Reservoirs	440	660
Repairs to Farmhouses	1,497	2,279
Total	2,554	3,869

CHAPTER XIII

GOZO SECTION

Introduction

It is estimated that over 75% of the population in Gozo make a living out of the soil and from the breeding of livestock.

The area of cultivated land in Gozo is about 37,200 tumoli out of which about 1000 tumoli are under irrigation.

After satisfying the local demand, most of the agricultural products in Gozo are sent to Malta.

Horticulture

Experiments on various Horticultural Crops, which were started the previous year, were continued.

Experiments were carried out with:-

1) Carnations under glass and in the open;
2) Roses under polythene and under glass;
3) Tomatoes under glass and in the open;
4) Vine growing under polythene;
5) Strawberries under polythene and in the open;
6) Brussel Sprouts;
7) Onions - different varieties were tried out which gave the following results:-

Spanish Globe Yellow	-	1780 rot. per Tumolo
Shiro' Improved	-	1112 " " "
Yellow Rocca	-	2169 " " "
Rossa di Calabria	-	1390 " " "
Golden Yellow Rocca	-	1669 " " "
Early Grano	-	2506 " " "

Good and promising results have so far been achieved by these experiments. It is intended to repeat such experiments to get more experience and knowledge about their cultivation and production.

Another glasshouse 49' x 24' was set up at Villa Rundle and planted with different varieties of tomatoes.

In the summer the Boiler of the Government Farm,

two Government glasshouses.

Government Nurseries

1. Public Gardens - Victoria

These gardens cover an area of 4 acres and are the only recreational grounds in Victoria.

They were duly attended to all the year round. A great many annual and biennial and flowering bulbs were planted in these gardens and they made a wonderful display of colours especially in Spring and Autumn time.

These gardens are visited all the year round by the general public. They also serve as grounds for the Gozo Agricultural and Industrial Show and other fairs and shows. It is also in these gardens that several thousands of flowering plants are raised every year, either for our use or to be sold to the general public.

2. Ornamental Trees Nurseries at Kercem and "Tad-Dawwara", Victoria.

Great importance is always given to these Nurseries as these are the only source in Gozo where demand by the public for ornamental plants, shrubs and decorative plants in pots is met.

Both these Nurseries are maintained in good order, clean and tidy all the year round. They are frequented often by tourists and by other visitors.

Very often advice by the gardening staff is given on the spot.

During the year no fewer than 23,704 ornamental trees, shrubs and plants were propagated in the open grounds or in pots.

Different kinds of cuttings were rooted in the two Mist Propagation Houses which are to be found in this Nursery.

This system of rooting and the rooting media have been found extremely satisfactory. It is a fact that great time is saved in propagating plants.

3. Fruit Nurseries (Adjoining Government Livestock Centre)

One of the main activities of this Branch, during the year was the continued establishment of the fruit nurseries.

About 5 acres of land have been put under fruit trees.

Another 3 acres of land adjoining the nursery have been acquired during the year.

About 5 tumoli of land were sown with almond seeds and another ½ tumolo with Quince. 11,500 rootstock seedlings have been planted during the year.

Grafting stock included the following:

50	varieties	of	Peaches
20	"	"	Plums
10	"	"	Apples
10	"	"	Apricots
15	"	"	Pears
5	"	"	Kaki
2	"	"	Nectarines

Another fruit orchard with different new kinds and varieties of fruits was established to serve for demonstration purposes to growers.

During the month of December thousands of fruit trees of different kinds and varieties were sold at a nominal price to fruit growers as an incentive to increase fruit cultivation.

Thousands of fruit trees were sold during the year.

Public Plantations

All trees planted along public roads and in open spaces were duly attended to as regards strutting, hoeing, watering and pruning.

It is the policy of the Department to embellish our Islands with greater number of trees. With this policy in mind, every endeavour was made to add more trees in

newly widened roads, in flower beds and other open plots where space was provided.

The total number of trees and shrubs added or replaced where missing were the following:-

Number of trees added	-	1134
Number of shrubs added	-	1213
Number of trees(replaced)		297
Number of shrubs "	-	659

Trees newly planted or replaced comprised different kinds such as Ficus, Tamarix, Ailanthus, Oleander, Morus, Jacaranda, Salinus, Pinus, Olives, Carobs, Mulberries,etc.

Afforestation

About 10 tumoli of Government land was this year acquired at "Ta'Blankas", limits of Xewkija. About 350 olive and 15 carob trees were planted here.

It is estimated that the afforested lands in Gozo amounted to about 28 acres comprising some 7000 trees.

Animal Health and Husbandry

T.B. and Brucellosis Testing under the Disease Eradication Scheme were continued during the year.

Constant advice was given to farmers about disease precautions by way of vaccination.

Many livestock breeders availed themsleves of the Government Free Service at the Government Livestock Centre where good stud livestock are always provided.

About 52,7000 doses of Poultry Vaccine were sold to Poultry Keepers at 1/- per 100.

Crops

Several crops were grown on our lands adjoining the Government Centre and other lands.

These../..

These crops were mostly grown for consumption by our livestock.

Production of these crops amounted to:-

300 qantars of Lucerne
75 hmiel dry clover
56 qantars mangolds

Viticulture

The following are the figures for vine rootstock sold to Gozo farmers during the last five years:-

1962	1963	1964	1965	1966
55,860	19,281	12,680	13,816	11,792

Since the Wine Control Regulations came into effect quality and standard of local wines improved considerably.

The following data relating to these Regulations were collected during this year's Vintage Season:-

Licensed Commercial Vintners	-	59
Grapes Pressed	-	6042 qantars
Production of Wine	-	18557 barrels
Production of Must	-	300 "
Wine shipped to Malta	-	24190 "
Sales of Wines in Gozo	-	16690 "

Experimental vineyards established on privately owned farms in different districts in Gozo were laid during this year and the previous years were taken good care of.

4 farmers planted 240 vines against rubble walls.

Government Experimental Vineyards

The experimental vineyard which was laid down in 1963 was duly attended to. This Experimental Vineyard comprises about 21 varieties of the best vine grapes and 18 table grapes. This as well will serve for demonstration to Vine Growers. Hundreds ofscions of these varieties were

sold../..

sold at a nominal price to Vine growers as an encouragement to introduce these new varieties of grapes which are considered suitable for our lands.

Plant Pathology Section

i) Trees

About 833 Citrus trees were treated against Iceria, Scale Insects, Aphids and Mediterranean Fruit Fly.

ii) About 46 tumoli of vines were treated against Powdery Mildew and about 50 tumoli of potatoes were sprayed against Blight.

iii) In addition all Government Experimental Fruit Orchards and Vineyards as well as ornamental trees/shrubs cultivated in the various nurseries were treated against Plant Pests and Diseases.

Government Livestock Centre

This Centre is mainly kept as a Stud Centre.

Good Stud Livestock is always provided at this Centre and farmers make great use of this Free Servicing.

The following are the heads of livestock kept at the Centre:-

Swine	-	3 Boars
Bovines	-	2 Bulls
Ovines	-	20 Sheep
	-	1 Ram
	-	24 Lambs
Caprines	-	2 Billy Goats
Poultry	-	150
Rabbits	-	5 Bucks - 8 Does - Flemish Giant
	-	19 " -15 " - N.Z.A.
	-	7 " 6 " - Local
	-	1 " - 2 " - Californian
	-	84 sucklings

The number of services were the following:

Cows	283	Sows	178
Goats	125	Rabbits	296

Financial../..

Financial Assistance to Farmers

Financial Assistance to farmers by way of Loans and Grants were continued. 4 farmers were given Loans and Grants to install water mains on their farms; 7 farmers were given aid to be able to repair their farmhouses.

2 farmers were able to install electricity on their farms with Government aid.

Extension Service

Various experiments were carried out from time to time and farmers had the chance to see for themselves the difference in yield from new varieties of crops.

In December Mr Guy Spoiden was posted to Gozo as Associate Expert in Glasshouses.

Glasshouses were well looked after. During 1966 about 2 tons of tomatoes from Gozo glasshouses were exported to the United Kingdom.

Seeds of different varieties such as water-melons, onions, etc. were distributed at a cheap price to farmers, during the year.

Fertile Soil (Preservation Ordinance) 1935

Several rocky sites were reclaimed under this Scheme. The following data were collected during the year:-

Applications received	-	31
Sites where soil existed	-	20
Sites where no soil existed	-	1
Soil removed by private people	-	509 cub.yards
Soil removed by P.W.D.	-	3000 cub.yards

The soil preserved was utilized for:-

a) Construction of Back gardens;
b) Reclamation of lands at back of buildings;
c) Reclamation of Government-owned lands;
d) Newly constructed flower beds.

Annual Agricultural Show

The Annual Agricultural Show is the major traditional event for Gozo farmers. It was held on the 14th and 15th August, with the usual noteworthy success.

CHAPTER XIV
THE CO-OPERATIVE SECTION

The Co-operative Section is entrusted with the registration and supervision of Co-operative Societies as required by the Co-operative Societies Ordinance and Regulations of 1946. The main duty of the Co-operative Section at present is the auditing of the Societies' accounts. Direct supervision is continually exercised with a view to ascertaining that registered societies are managed in conformity with legal requirements.

No new societies were registered in 1966.

Progress was made in the auditing of the accounts of the societies. The current auditing of the accounts of societies in operation was kept up-to-date and considerable headway was made in dealing with the backlog.

The societies, engaged in marketing agricultural products are established, one in each, at Birkirkara, Marsa, Rabat, Zebbug, Siggiewi, and Valletta.

It is estimated that through these stalls about 21% of the total agricultural products is sold.

CHAPTER XV
FISHERIES SECTION

During 1966 the Section kept up its efforts towards containing the position in the Fishing Industry through the various services to fishermen consisting mainly in the ready payment of their dues through the Marketing Scheme; the acquisition of equipment through the Fisheries Supply Services; the Loans and Grants Scheme; the subsidization of fuel; the dissemination of technical information and the implementation of the Development Plan which covers, among other things the improvement of fishing centres and the construction of stores and dwelling units for fishermen.

Landings and Marketing

There were no marked variations either in the local landings or in the number of fishermen. The local catch for 1966 was 1,633,290 rotoli against 1,636,816 rotoli in the previous year and the number of fishermen remained, more or less, the same. The wholesale value of the fish caught locally was £334,861 against £319,454 in 1965 and the retail value was £436,617 in 1966 against £425,005 for the previous year, the average retail price per ratal ranging between 4s.5d. and 5s.11d. in 1965 against 4s.10d. and 5s.7d. in 1966.

Importations of fresh fish during 1966 totalled 59,859 rtal at a wholesale value of £15,233 against 29,997 rtal at a wholesale value of £7,658 in 1965. This rise in imported fresh fish was due to good Spanish Macherel in Lampedusa waters and to the fact that this species does not find a ready market in Italy whilst it is a favourite seasonal dish in Malta.

The overall landings, including imported fresh fish came up to 1,693,149 rotoli in 1966 against 1,666,813 rotoli in 1965.

Loans and Grants

During the calendar year under review Loans and Grants continued to be awarded to full-time fishermen under the Financial Assistance Act, 1956.

In the case of Fisheries the awards are made for the acquisition of new boats, repairs and overhauls,

purchase../..

purchase of equipment and replacement of petrol/paraffin by diesel engines.

The amounts given out were as follows:

Construction of craft, repairs and overhauls		Purchase of Equipment		Replacement of engines	
Loans	Grants	Loans	Grants	Loans	Grants
£4945	£2977	£2065	£824	-	£730

Under the Scheme, in order to inject more interest in the awardees, they are made to contribute 20% of the project in the case of craft, 30% in the case of equipment and 60% in the replacements of engines, the grant element being 30%, 20% and 40% respectively.

The Fishing Equipment Supply Service

The year under review showed more clearly than ever that fishermen have been gradually converted to the use of synthetic material in preference to the conventional fibre equipment.

In fact during 1966, the importation of sisal and other cordages amounted to only £2,163, whilst in 1963 over £7,000 of the same material used to be imported.

This is a great step forward as both the price and the properties of the synthetic fibre equipment are very much in favour of the fishermen, in that, it is easier to handle, more durable and does not require drying and dyeing.

In 1966 the importations of nylon nets, polythene and other synthetic equipment cost £7,458 and it is anticipated that in the near future all importations, apart from corkwood, which so far has not been found to be replaceable for kannizzati fisheries, will comprise synthetic equipment.

Propaganda and Research

In 1966 the erstwhile pamphlet "Is-Sajd" was incorporated in the Department's monthly publication "L-Agrikoltura" and in this manner more information on

the../..

the activities of the Department as a whole is being made available to a very much greater number of readers thus infusing more interest in what had previously been two separate mailing lists.

Attempts have been made during the year to find which species of local fish can withstand living in restricted space. With this end in view, a hall in the Fisheries Station at the Marina was converted into a wet room, containing several aquaria, each with a different species of fish. Trials are being made with, among others, the grey mullet, the scorpion fish, the octopus, the Blue Damsel and the Green Wrasse. So far it has become apparent that the grey mullet is the more hardy of all species and that it is not selective in its diet. These trials are preparatory to the eventual cultivation and, possibly, breeding of fish in salt-water enclosures, with a view to supplementing the catch during neap periods.

Construction Works

Improvements in fishing centres were proceeded with funds provided under the Five Year Development Plan.

At the end of the year under review the widening of moles and the building of dwelling units and stores at Marsaxlokk were in the final phases of completion and the dredging of the inner part of the same harbour war carried out in July/August.

At Wied iz-Zurrieq, a concrete berthing ledge along the whole creek was completed and mooring facilities were improved.

Other minor constructions in bays and anchorages from which fishermen operate, all along the coast of Malta and Gozo were carried out where necessary. These included construction of hauling ramps, re-alignment of slipway gradients, construction of protective arms and improvement of net-mending, dry berthing and mooring facilities.

General../..

General

Apart from these specific services the Section provided assistance both administratively and by physical intervention of its staff towards the solution or alleviation of fishermen's problems.

One of the main services rendered was the allocation and laying of "kannizzati" sites all round a belt encircling both Islands. This activity generally includes the solution of controversies or directing lay-outs as far as 80 or 100 miles out at sea. Other extension service was given to those seeking advice regarding the properties of material and deck or electronic equipment.

The Section also liaises with the Service Authorities towards the payment of compensation for damages caused by Service Practice in Malta Waters. In this regard, it is worth recording that by co-operation on the part of the Services the difficulties experienced by fishermen have been minimized, within the limitations of service exigencies. Indeed, the position has improved to an appreciable extent.

Other liaison work in connexion with the provision of port facilities by other Departments, such as the extension of electricity, dredging and other works and also helped in the provision of better conditions to the fishermen.

Conclusion

In consideration of the fact that fishermen's sons are nowadays more apt to seek work ashore and that the overall resident fish population in the neighbourhood of the Maltese Islands is very poor so far it has been possible to stave off a depletion in the number of operators and also a drop in fish landings. There is no doubt that this is due to the help given to the industry in the various ways mentioned, which has lightened the burden of the fisherman and enhanced his working and living conditions.

CHAPTER XVI
HORTICULTURAL DEMONSTRATION AND TRAINING CENTRE
PROGRESS REPORT

From 26th November, 1965 (date operations authorised to commence) to 31st December, 1966.

A. Work carried out during the period under review:

(a) Recruitment of Personnel

Fruit Specialist and Viticulturist, Project Manager

Mr G.Mazzocchi paid a preliminary visit to Malta in July, 1965. Tookup his duties in Malta on 15th September, 1965.

Greenhouse Management Technician

Mr Le Tissier joined the Project on 22nd February, 1966.

Plant Protection Specialist

Mr Collingwood made a preparatory visit in June 1966 to arrange supplies and took up duty in Malta on 2nd October, 1966.

Greenhouse Production Specialist

Mr Siddall took up duty in Malta on 2nd October, 1966. Outdoor Vegetable and Flower Crops: It is expected he will take up his duty in Malta in July, 1967.

(b) Associate Experts

From the Government of Belgium: Mr Spoiden took up his duty on 22nd May, 1966. He worked in Malta in close co-operation with the Greenhouse Management Technician up to the 30th November, 1966. From the 1st December, 1966 he took up his duty in Gozo. His terms of reference are to assist in the Greenhouse Production and in outdoor fruit and strawberry.

(c) Consultants../..

(c) Consultants

Greenhouses Production Consultants: Mr G.F. Sheard from Glasshouses Crop Research Institute, Littlehampton, United Kingdom. He made a first visit to Malta from 22nd February to 1st March, 1966. A second visit was paid from 4th to 18th July, 1966.

Horticultural Marketing Consultant: Mr R.Goldbecker from Covent Garden, United Kingdom. He visited Malta from 20th to 24th April, 1966.

Rose Production Consultant

Professor Ruffo Benedetti from Florence University visited Malta from 29th June to 6th July, 1966. He was seconded free of charge from the University of Florence.

Control of Dipterous Insects Consultant

Dr. M.Feron, Director of the Station de Zoologie, Agricole I.N.R.A. Cantarel - Montfavet, France. He stayed in Malta from 16th to 25th November, 1966.

Boiler Maintenance and Steaming Engineer

Mr I. Mann from E.J. Gilroy Company Limited, Guernsey. Steam sterilization was carried out under his control. He stayed in Malta from 19th July to 7th August, 1966.

(d) Duty trips carried out by Project Personnel

Fruit Specialist and Viticulturist - from 3rd February to 20th February; to Libya and Tunesia for introduction of planting material. From 18th April to 4th May, to Rome on duty at F.A.O. Headquarters and visiting experimental stations for collecting plant material. From 11th July,to 20th July, 1966 in Sicily for collecting planting material.

Greenhouse Management Technician

In connexion with his home leave he visited; (from 27th August), Wageningen I.T.T. Exhibition.

Horticulture Equipment; Naaldwyd: Tomatoes, Cucumbers and Peppers; Aalsmeer: Gerbera, Carnations and other flower crops; Vocent Garden: Salesmen and Mr Goldbecker F.A.O. marketing consultant to Malta. GCRI Littlehampton: to meet Mr Sheard, F.A.O. consultant to Malta.

(e)Greenhouse Production

I. Tomatoes: The following trials and demonstrations were carried out:

1. Demonstration on commercial scale of good cultural practice, using the "Guernsey" system of growing and training and variety "Fountain Cross".

2. Culture in polythene lined troughs with built-in steaming and drainage channels.

3. Culture in containers on a peat substance.

4. Demonstration of horizontal training method developed by Fairfield E.H.S.

5. Variety trials over two seasons, using Dutch varieties and new hybrids from Glasshouse Crops Research Institute, United Kingdom.

6. Demonstration of use of feed diluters and trickle irrigation.

II. Other Crops:

Observation trials were carried out with bell pepper, iris, gerbera, carnations, roses and cucumbers.

III. Heating:

Plans were prepared for a comprehensive heating system for the glasshouses on the Government Farms of Malta and Gozo, including plans for housing the boilers supplied by F.A.O.

A small trial was carried out with an air heater provided by a commercial firm.

IV. Steam../..

IV. Steam Sterilization:

All three boilers, supplied by F.A.O. were put into operation and steam sterilization of the glasshouses on the Government Farms was in progress. Plans to steam farmers' glasshouses were prepared.

V. Marketing:

1. Regular direct sendings of tomatoes to two main export markets were initiated this year. Grading and packing was to the highest standard and a distinct improvement in prices obtained. Gerberas and carnations were also exported and obtained satisfactory returns.

2. Discussions with the Government resulted in the implementation of legislation for quality control of export tomatoes and inspection machinery was set up.

3. Discussions with farmers' representatives have commenced and a draft scheme prepared for collective marketing of perishable produce.

(f) Crop Protection:

The Crop Protection Specialist paid a brief visit to Malta in June 1966, then took up his appointment in October, 1966. Since investigations on the following broad lines were initiated and these will be continued next season.

1. Examination was made of the climatic conditions prevailing in unheated greenhouses (particularly during the winter months), in relation to the incidence of blight (Phytophthora infestans) on tomatoes.

2. Small-scale trials were carried out with a number of fungicides for the control of blight on tomatoes.

3. A survey was made of soil-borne diseases and pests in tomato houses.

4. Trials were being carried out on the control of powdery mildew of roses.

5. Similar../..

5. Similar trials were carried out on the control of powdery mildew of Cucumbers.

6. Considerable time is being devoted to the study of pests and diseases of the strawberry crop and an attempt was being made to formulate a routine spray-programme.

7. Trials were under way to control certain mineral deficiency diseases of peaches.

8. Attempts were being made to produce grain-spawn of the Tropical Mushroom (Volvaria volvaceae).

9. A small plant-virus testing unit was being established and limited virus testing had already begun.

10. Advice was offered to the Director of Agriculture on the Crown Gall (Agrobacterium tumefaciens) problem in the Maltese Islands General Advice, including numerous advisory visits, was offered to growers.

g) Outdoor fruit production trials:

Selection of local varieties and rootstock

Outstanding specimens were found in 31 private gardens in Malta and Gozo. Most of the grafting material for nursery stock in the Department of Agriculture, Stations were taken from 5 varieties of table olive, 8 varieties of peaches and 10 varieties of pear, 1 variety of apple, 4 varieties of almond, 4 varieties of cherry plum.

Plant Introduction:

Importations for trial were made from Tunisia, Libya, Italy (southern regions and Sicily), Israel, United States of America, Australia, imported material was for 42 varieties of peach, 18 table olives, 22 pear, 14 prunes, 14 apricots, 5 apples, 6 cherry pum, 2 pistachio, 3 almonds, 1 mandarine (climbing manderine). Three different rootstock for pear, 6 for stone fruit, 6 for apple, 5 for Citrus. Trials with the above material were organized as explained in A and B overleaf.

A. Work../..

A. Work on adult rootstock for quick testing of new varieties.

Tal-Kmand, Kercem, Ta'Dawwara, Livestock Centre at Gozo and in 35 private farms and gardens at Malta and Gozo.

B. New Plantations for trials: were established at Ghammieri under dry farming and at the "Livestock Centre" at Gozo under irrigation. Twenty-eight small plantations at Malta and 15 at Gozo were established. To carry on the above work and for observations being carried out on the different varieties more than 400 visits were made up to-date in the different places by the Fruit Specialist.

h) Importation and local production of fruit nursery stock for distribution to farmers:

A total of 11,000 seedlings of Pyrus communis Malus communis, Myorobalan, Quince was imported through F.A.O. Rome for the establishment of nurseries at Gozo and Ghammieri, for the production of nursery stock for distribution to farmers. Nurseries with local bitter almond kernels were established at Ghammieri under non-irrigated condition, for production of stone fruit nursery stock. Same work with bitter almond kernels was carried out at Gozo under irrigation.

Direct sowing "in situ" of bitter almonds for stone furit was carried out in trial plantations at Ghammieri and in many private farms at Malta and Gozo.

Investigations are now being carried out to find resistant rootstock to plant diseases and pest, etc. like "Agrobacterium tumefaciens", lime induced clorosis gummosis, nematodes, drought resistance, rootstock-scion affinity, dwarfinf effect of some rootstock viruses tolerance, etc.

Observation Studies on the Fruit Trial Plantation:

(This work is well advanced at Gozo Livestock Centre). Works are being entirely carried out at Gozo, on different varieties of fruit trees, regarding date of

maturity of fruit, resistance of winds, pests and diseases, time of ripening, production and quality of fruits, physiological drop, thinning of fruit, etc.

It is to be noted that great progress has been made in this line and necessary steps soon will be taken to introduce amongst fruit growers the best varieties of certain fruit trees which are considered worth growing in the Maltese Islands.

Essential work to be carried out as soon as possible for improvement of fruit at Gozo, Livestock Centre:

Improvement of wind breaks. This should be a combination of walls crested with trellis of canes (Arundo donax) to protect the trees from the North and North-West wind.

At Tal-Kmand: A general plan should be laid out for all the area as a unit. For next planting season it is essential that the eradication of Bermuda grass (Cynondon dactylon-nogem) and importation of suitable soil be carried out.

i)- Vine grapes

Plant Introduction: This was made with a view to test better varieties and for the availability of virus free material.

The "Vivaio Governativo di Viti Americane" Palermo, supplied through F.A.O. 4,000 rootlings of 4 varieties.

Grafting material was imported as follows:-

16 varieties from Davis, U.S.A. through the co-operation of Mr Galea Souchet, some of them supplied with the guarantee to be virus free.

8 varieties from Israel supplied through the co-operation of the Charge' d'Affaires of Israel at Malta.

4 varieties from Libya brought to Malta by the Fruit Specialist and Viticulturist.

Work../..

Work on Grapes

Grafting work was carried out at Buskett, Ghammieri, at the Livestock Centre at Gozo, and in private farms.

Pruning and cultivation:

At.Ghammieri Farm: the old vineyard resulted to be on "rupestris du Lot" roots. An attempt is now being carried out to eradicate "cynodon dactylon" and "Cyperus retundus" which developed tremendously in previous period of neglect. The use of weed killers was considered not suitable. Mulching with black polythene resulted partially effective. Now we are testing thick card-board (this is being collected free of charge from the Refuse Disposal Centre near the Farm).

The weakness of many of the vines is due to the previous period of abandonment but there are also some symptoms of virus (courtnuè - degenerazine infettiva?) for which an F.A.O. Plant Pathologist is carrying on indexing with "Chenopodium amaranticolor". The "MARSA" district seems to be suitable for early ripening varieties, and for the protection of the cluster we are considering the use of paper and plastic bags. In fact small isolated plantations of early ripening grapes like that at Ghammieri was subject to the total destruction by wasps and birds.

At the Livestock Centre at Gozo: After discussion with Mr Debrincat, Senior Agricultural Officer at Gozo, the "cordon semplice" and "cordone doppio" methods were adopted. These seem very simple "low training" methods, which do not require expensive trellis work and could probably be easily adopted by farmers.

Also in this Centre some vines showed symptoms of viruses. In a private former quarry work started for establishing different rootstock. Already established vines were pruned and trained on the quarry walls.

Training../..

Training and demonstration at field level:
Farm operatives and private farmers are being trained in better budding, grafting, pruning methods, etc.

Bibliography:

Investigations were being carried out through F.A.O. for the supply of suitable publications for a library to be established for the improvement of grapes in the Maltese Islands.

j) Training and Fellowships:

Training: is being carried out at field level for farm operatives and for private farmers.

Fellowships: Within 1967 all arrangements should be completed for awarding fellowships in accordance with the Plan of Operation. For the time being plans have gone ahead for the fellowship in Glasshouse Production. This is expected to start in September, 1967 at Davis, California, U.S.A.

Fellowships have been awarded to 3 fellows for 2 months starting October of this year for "Boiler Operation and Maintenance" that will be arranged at "Messrs.Gilroy Co.Ltd., Les Barrats Vale, Guernsey".

Lectures: were given by the Fruit Specialist Viticulturist with projection of slides at general farmers meetings at Rabat and Naxxar in the presence of the Minister of Agriculture. A lecture was also held at Floriana in the Horticultural Course organized by the Department of Agriculture.

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TABLE 1

1. WEIGHTS

MALTESE	ENGLISH	METRIC
1 Ratal	1.75 lbs	.79 kg.
1 Wizna	8.75 lbs	3.97 kg.
1 Qantar	175.00 lbs	79.38 kg.
1280 Rtal	2240.00 lbs	1016.00 kg.

2. MEASURE OF CAPACITY

1 Mondello	.66 gallons	3.03 litres
1 Garra	2.38 gallons	10.80 litres
1 Tomna	4.00 gallons	18.18. litres
1 Barile	9.50 gallons	43.19 litres
1 Salma	64.00 gallons	290.88 litres

3. MEASURES OF LENGTH

1 qasba kwadra	5.25 sq. yards	4.39 sq. metres
1 kejla	22.41 "	18.73 "
1 siegh(10 Kejlijiet)	224.10 "	187.35 "
1 tomna (6 sighan)	0.28 Acres	0.11 hectares
1 wejla (4 tmien)	1.11 acres	0.45 "
1 mudel (4 wejlie)	4.44 acres	1.80 "

4. MEASURES OF LENGTH

1 Pulzier	.86 inches	21.83 cm
1 xiber (12 pulzieri)	10.38 inches	26.19 cm.
1 qasba (8 tixbar)	2.29 yards	2.10 m.

5. MEASURE OF VOLUME

1 xiber kuba	0.63 cubic ft.	17.97 dm^3
1 qasba kuba	12.04 cubic ft.	9.20 dm^3

NOTE:- An acre is equivalent to 3.6 tmien - A. Tomna is a swuare with sides 110 ft. long.

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Table 2

1 9 6 6

i) Farm Population - (1960 - 1966)

	1960/61	1962/63	1963/64	1964/65	1965/66
Wholetime farmers	7,330	6,358	6,737	6,476	6,283
Part-time farmers	8,815	8,751	9,124	8,281	8,615
Farm Population not engaged in farming	20,175	21,001	20,411	20,523	21,032
Children	17,191	15,779	14,741	13,549	13,282
	53,511	52,389	51,013	48,829	49,212

ii) Area

Malta ...	...	...	94,879 or 60,717 acres
Gozo ...	...	...	25.899 or 16,575 acres
Comino...	...	...	1.075 or 688 acres

Table 2 (contd.)

iii) Land Distribution

MALTA	1960 Tmien	1961 Tmien	1963 Tmien	1964 Tmien	1965 Tmien	1966 Tmien
Agricultural Land						
Dry	107,980	105,543	100,687	99,613	96,750	96,851
Irrigated	5,528	5,470	5,585	5,287	5,048	5,624
Waste	19,511	18,860	18,064	17,712	16,627	15,988
	133,019	129,873	124,336	122,612	118,425	118,443
GOZO						
Agricultural Land						
Dry	29,121	27,866	27,642	26,626	25,781	25,507
Irrigated	741	689	624	560	533	545
Waste	1,845	1,757	1,953	2,037	1,821	2,079
	31,707	30,321	30,219	29,223	28,135	28,131
Total Malta & Gozo	164,726	160,194	154,556	151,835	146,560	146,574

Table 3

Grants and Loans - 1966

Purpose	Cases	Loans £	Grants £
General Scheme			
Rotary Cultivators	12	2,505	1,670
Glasshouses	8	6,741	4,491
Overhead Irrigation Equipment	8	2,208	1,470
Poultry Units	2	1,910	1,273
Cloches	1	662	441
Improvements to Farmhouses			
Repairs to Farmhouses	24	2,399	1,595
Construction/Repairs of Water Reservoirs	5	660	440
Assistance to Co-operatives			
Buildings and Agric. Machinery (Truck)	1	382	255
TOTALS	61	£17,467	£11,635

DATE OF RELEASE	NAME OF SHIP	ARRAN BANNER N. IRELAND	ARRAN BANNER EIRE	ALPHA HOLLAND	ALPHA DENMARK	GRAIGS ROYAL	DIFFERENT VARIETIES	ALPHA N.IRELAND
15.11.66	S.S. KOLKA			451 tons 14 cwts.				
21.11.66	S.S. KARON				475 tons			
24.11.66	S.S.LIMMERLAND				50 tons			
24.11.66	S.S. LIMMERLAND				75 tons			
24.11.66	S.S. MEDAS			75 tons				
28.11.66	S.S. BEN RYN						1½ tons	
1.12.66	S.S. ERIK RYN	756 tons 11 cwts						
5.12.66	S.S. MAGOS			50 tons				
5.12.66	S.S. MAGOS			150 tons 2 cwts.				
12.12.66	S.S. AXEL GATKON		243 tons 9 cwts					
12.12.66	S.S. AXEL GATKON					10 tons		
13.12.66	S.S. TARES			100 tons				
13.12.66	S.S. PHIDIAS			50 tons				
15.12.66	S.S. FAIR WIND			99 tons 14 cwts.				
15.12.66	S.S. FAIR WIND			50 tons				
16.12.66	S.S. RUTH LIDENZA				100 tons			
16.12.66	S.S. RUTH LIDENZA				30 tons			
16.12.66	S.S. RUTH LIDENZA				102 tons 10c.			
16.12.66	S.S. RODOS				296 tons 14c			
21.12.66	S.S. TUBAL	25 tons			23 tons 10.			
21.12.66	S.S. TUBAL	65 tons				15 tons		½ ton
21.12.66	S.S. TUBAL	169 tons						1 cwt. Pentland Arran
21.12.66	S.S. TUBAL	80 tons						
		1095 tons 11 cwts	243 tons 9 cwts.	1026 tons 15 cwts	1152 tons 14c.	25 tons	1½ tons	11 cwts.

RECAPITULATION:

ARRAN BANNER	N.IRELAND	1095 tons	11 cwts.
ARRAN BANNER	EIRE	243 tons	9 cwts.
ALPHA	HOLLAND	1026 tons	15 cwts.
ALPHA	DENMARK	1152 tons	14 cwts
CRAIGS ROYAL	EIRE & N.IRELAND	25 tons	
ALPHA	N.IRELAND		11 cwts
DIFFERENT VARAITIES	N.IRELAND	1 ton	10 cwts
	TOTAL	3550 tons	10 cwts

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SEED POTATOES IMPORTED IN 1966

TABLE 3 5

EXPORT OF SPRING POTATOES -1966

DATE	NAME OF SHIP	QUANTITY	DESTINATION	TONNAGE	REMARKS
2.4.66	NAHSHON	520 cases	London	13 tons	
5.4.66	CAVALLO	520 "	London	13 tons	
6.4.66	BY AIR	1 "	Sweden	2 qrs.	
12.4.66	CITTA DI LIVORNO	500 "	Sweden	12 tons 10 cwt.	Syracuse then by train
14.4.66	GREGOROUSA	900 "	London	22 tons 10 cwt.	
		15540 bags	U. K.	388 tons 10 cwt.	
15.4.66	TARAS	11719 "	Rotterdam	292 tons 10 cwt.	
18.4.66	JOSEF CONRAD	18400 "	Rotterdam	460 tons	
20.4.66	CATANIAN	15352 "	London	383 tons 16 cwts.	
20.4.66	PHIDIAS	13122 "	Rotterdam	328 tons 1 cwt.	
23.4.66	THALLETAS	30409 "	Rotterdam	760 tons 4.c. 2 qrs.	
		876 cases	Sweden	21 tons 18 cwts.	
21.4.66	TOBITRADER	11581 bags	Rotterdam	760 tons 4c. 2 qrs.	
		136 cases	Leith	3 tons 8 cwts.	
25.4.66	AENEAS	17245 bags	Rotterdam	431 tons 2c. 2 qrs.	
		404 cases	Rotterdam	10 tons - c. 2 qrs.	
25.4.66	AUGUSTE Sc HULTE	11968 Bags	London	299 tons 16 cwts.	
27.4.66	MARCELLI MOWKTO	26400 "	Rotterdam	660 tons	
		146 cases	London	3 tons 13 cwts.	
28. 4.66	ANATOLIAN	6440 bags	London	161 tons	
30.4.66	KYPRUS	27929 "	Glasgow	698 tons 4 c. 2 qrs.	
1.5.66	ARCAS	24700 "	Rotterdam	617 tons 10 cwts.	
2.5.66	JUNDRALAND	10198 "	Sweden	254 tons 19 cwts.	
		" 488 cases	Sweden	12 tons 4 cwts.	
2.5. 66	CITTA DI ALLESANDRIA	490 "	Sweden	12 tons 5 cwts.	By train
6.5.66	CALCAS	25100 bags	Rotterdam	627 tons 10 cwts.	
6.5.66	ESTHER	38000 bags	Rott/London	950 tons	
9.5.66	MINIAS	21000 bags	Rotterdam	525 tons	
11.5.66	STENTOR	14654 "	Rotterdam	366 tons 7 cwts.	
11.5.66	DAGE HOHMER	4400 bags	Continent	110 tons	
12.5.66	DARINIAN	1000 "	London	25 tons	
		47 "		1 ton 3c 2qrs.	
15.5.66	VEGALAND	11200 "	Sweden	280 tons	
16.5.66	ACETAS	10313 "	Rotterdam	257 tons 16 c. 2qrs	
18.5.66	DJAKARTA	21690 "	Rotterdam	542 tons 5 cwt.	
21.5.66	CAVALLO	15639 "	London	390 tons 19c. 2 qrs.	
29.5.66	MINOS	5170 "	Holland	129 tons 5 cwts.	
28.5.66	CATANIAN	3223 "	U.K.	80 tons 11c. 2qrs.	
				10,435 tons 10 cwts	

UNITED KINGDOM	2848 tons 10 cwts. 2 qrs.
HOLLAND	7015 tons 1 cwt.
SWEDEN	571 tons 18 cwts. 2 qrs.
	10,435 tons 10 cwts.

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TABLE 6

EXPORT OF DRY ONIONS 1966

DATE	NAME OF SHIP	No of Cwt.Bags	DESTINATION	Expected date of Arrival	TONNAGE
15.6.66	S.S. ROLLO	9,710	London	22.6.66	242 tons 15 cwt. 0 qrs.
16.6.66	S.S. HANNA	36,000	London	23.6.66	900 tons
21. 6.66	BY AIR2	}	Sweden	-	- tons - cwts 2 qrs.
21.6.66	S.S. WIEBOLD BOHMER	10,000	Holland	2.7.66	250 tons
21.6.66	S.S. DEROR	26,750	Liverpool	29.6.66	668 tons 15 cwt. 0 qrs.
23.6.66	S.S. POLENDAN	18,770	United Kingdom	2.7.66	469 tons 5 cwt.
24.8.66	S.S. BELLONA	10,400	United Kingdom	3.7.66	260 tons
27.6.66	S.S. ESTHER	13,078	Rotterdam	10.7.66	326 tons 17 cwt.
27.6.66	S.S. BAGDAD	19,083	London	7.7.66	477 tons 1 cwt. 2 qrs.
29.6.66	S.S. RIVKA	14,825	London	7.7.66	370 tons 12 cwt. 2 qrs.
11.7.66	S.S. PALMAH	14,621	Avonmbuth U.K.	20.7.66	370 tons 10 cwt. 2 qrs
15.7.66	S.S. DARINIAN	3,420	London	24.7.66	85 tons 10cwt.
					4,421 tons 7 cwts. 0 qrs.,

UNITED KINGDOM	...	3,844 tons	9 cwts	2 qrs
HOLLAND	...	578 tons	17 cwts	0 qrs
SWEDEN	...	-	-	2 qrs.
		4,421 tons	7 cwts.	0 qrs.

TABLE 5

SALES FROM PITKALI MARKETS

VEGETABLES	1964		1965		1966	
	WEIGHT	VALUE	WEIGHT	VALUE	WEIGHT	VALUE
		£		£		£
Artichokes (G)	816,212	11,269	1,138,309	11,169	833,746	6,020
Artichokes (J)	83,917	2,254	107,388	1,687	90,622	2,376
Beans Broad	487,592	6,548	691,113	12,515	527,025	16,291
Beans French	66,518	3,403	57,902	2,644	80,196	4,940
Beetroot (Unt.)	184,859	1,827	160,392	1,656	147,948	1,510
Bellpepper	187,088	3,892	208,992	5,882	220,509	5,131
Broccoli	912	29	197	8	998	29
Brussels Sprouts	3,655	581	3,763	701	6,437	865
Cabbages	2,337,566	23,747	2,263,744	26,639	2,117,631	23,374
Carrots	20,023	157	15,015	203	13,597	106
Carrots (Unt.)	1,375,355	14,176	1,137,908	13,771	1,145,840	14,065
Cauliflowers (T)	2,107,823	22,950	1,796,203	27,842	2,462,023	15,936
Cauliflowers (Unt.)	1,745,635	24,163	1,590,024	19,568	2,013,354	26,835
Celery	388,125	4,561	344,233	4,669	389,981	5,134
Centenary	580	9	1,232	23	2,602	42
Chickpeas	45,818	423	57,648	553	24,630	269
Cucumber	148,058	3,959	160,325	3,752	102,858	4,815
Eggplant	179,315	3,078	185,139	4,423	187,331	3,406
Endive	198,008	1,900	196,856	1,873	163,688	1,330
Garlic Dry	6,016	441	11,388	1,023	25,473	1,003
Garlic Green	140,676	4,597	91,016	5,076	172,780	2,818
Gourds	230,301	3,024	272,671	2,968	153,807	2,193
Fennel	1,638	19	619	9	953	11
Kohlrabi	1,577,340	17,778	1,376,018	16,776	1,256,956	14,814
Leeks	8,543	89	12,452	124	11,986	133
Lettuce	794,757	13,819	767,403	14,416	828,523	16,472
Marrows Long	398,549	4,298	492,030	4,257	340,449	5,228
Marrows Veg.	1,139,653	26,094	1,036,877	31,538	1,241,294	41,653
Mint Herbs	714	13	706	14	553	15
Onions Dry	884,724	22,924	672,555	18,219	1,014,194	23,075
Onions Green	450,540	5,293	635,304	9,000	643,496	6,142
Onions Pickles	3,951	94	5,440	128	2,218	50
Parsley	61,946	1,209	54,122	1,410	55,928	1,533
Potatoes Spring	3,575,471	76,967	3,689,443	81,615	2,425,607	81,002
Potatoes Winter	2,165,692	45,173	2,722,019	49,878	2,684,532	52,720
Pumpkins	1,202,429	13,787	1,126,006	16,100	1,109,038	17,045
Peas	186,125	10,025	162,952	8,076	188,072	10,206
Radishes	2,793	74	1,121	34	5,292	191
Seakle Beet	1,209	15	592	7	1,052	13
Spinach	296,877	5,021	231,029	4,514	252,654	3,910
Tomatoes Eng.	601,184	26,330	452,401	33,031	582,489	40,439
Tomatoes R.	1,048,106	15,300	749,010	1,574	960,887	17,927
Tomatoes O.	998,045	10,465	1,140,304	16,243	97,113	19,522
Turnips	51,771	3,011	908	12	996	12
		£434,786		£455,602		£490,601

Tomatoes Eng.	[illegible]	[illegible]	[illegible]	33,001	362,495	40,439
Tomatoes R.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TABLE 6

SALES FROM PITKALI MARKETS

F R U I T S

FRUIT	1964 WEIGHT	1964 VALUE £	1965 WEIGHT	1965 VALUE £	1966 WEIGHT	1966 VALUE £
Apples	169,326	7,798	290,795	9,371	129,838	7,361
Apricots	1,256	168	2,448	290	19,909	1,658
Bambinella	35,342	2,830	7,719	690	6,487	674
Banana (Heads)	524	6	309	3	1,004	13
Blackberries	1,624	119	460,	137	2,201	193
Cherries	65	19	151	51	-	-
Figs Dry	2,149	82	1,282	51	3,816	123
Figs Early	250,493	7,049	199,393	5,332	200,375	7,223
Figs Late	45,671	1,393	40,350	1,289	84,439	2,177
Grapes	456,898	16,664	686,043	20,424	464,543	17,467
Grapefruit	60	12	52	11	47	7
Lemon (Dozen)	80,482	5,805	125,003	6,648	106,020	7,194
Lemon Sweet (Dozen)	78	4	54	3	69	4
Medlars	8,055	355	18,542	800	18,955	666
Melons Sugar	533,370	9,491	545,872	12,558	477,133	14,388
Melons Water	447,291	7,340	483,253	9,416	239,828	6,199
Melons Winter	302,907	5,860	335,396	5,720	209,372	4,556
Mulberries	2,621	82	4,362	110	2,447	73
Nectarines	596	38	3,990	196	155	13
Olives	211	8	2,646	93	41	2
Oranges (Doz	51,407	6,024	41,139	5,635	55,169	6,380
Oranges Sweet (Dozen)	10,773	1,583	8,286	1,363	12,346	1,698
Peaches	260,012	18,722	1,086,406	30,674	77,274	8,119
Pears	42,307	2,015	10,160	791	42,070	3,037
Pears Prickly	69,354	421	37,682	264	56,947	406
Plums	73,929	4,755	45,178	3,649	9,819	1,217
Plums Cherry	225,240	9,872	292,964	8,421	176,377	12,508
Pomegranaties	80,679	1,909	69,485	1,193	53,131	1,392
Prunes	263	17	104	5	-	-
Strawberries Edn.	54,775	9,726	94,271	16,493	70,423	12,806
Strawberries Local	7,816	631	541	293	485	438
Tangerines Dozens	14,488	1,655	9,466	1,229	11,872	1,361
		£122,453		£143, 203		£118,633

Table 9

Yearly Enumeration of Livestock 1957-1966

Year	Caprines		Ovines		Bovines		Swine		Equines		Rabbits & Poultry	
	Malta	Gozo	Malta	Gozo	Malta	Gozo	Malta	Gozo	Malta	Gozo	Malta	Gozo
1957	25,611	13,726	9,204	5,614	7,066	2,661	10,493	2,805	4,995	1,825	244,473	144,042
1958	23,743	13,201	9,233	5,778	7,626	2,172	12,381	3,981	4,748	1,827	252,588	157,307
1959	22,625	13,246	8,649	5,616	7,429	2,107	12,094	2,701	4,587	1,757	249,502	131,840
1960	21,010	13,678	7,909	5,107	7,206	2,172	11,217	2,829	4,422	1,698	264,515	132,513
1961	18,587	12,425	7,190	4,413	6,282	1,809	12,507	3,885	4,290	1,603	264,320	148,983
1963	17,225	13,083	6,424	4,538	6,566	2,013	12,414	3,343	3,978	1,619	280,353	144,283
1964	16,458	12,741	6,518	4,709	6,001	1,986	10,428	2,990	3,833	1,500	322,528	119,769
1965	14,818	11,164	6,419	4,066	5,384	1,874	12,217	2,949	3,582	1,362	355,186	140,383
1966	13,894	10,909	6,205	4,486	6,340	1,797	19,787	3,554	3,464	1,345	305,188	100,814

TABLE

DISEASE AND OTHER CAUSES OF UNSOUNDNESS OF MEAT

DURING 1966

DISEASE	CATTLE	PIGS	SHEEP	GOATS	LAMBS	KIBS	EQUINES	TOTOAL
LEUKAEMIA	1							1
PUTREFACTION			2	2				4
SPETICAEMA	3	5						8
TUBERCULOSIS	1							1
SWINE FEVER		2						2
ENTERITIS				1				1
	5	7	2	3				17

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TABLE No 11

VACCINATION OF PIGS AND INOCULATIONS OF POULTRY DURING 1966

MONTH	POULTRY		SWINE	
	FOWL PEST	FOWL POX	SWINE ERYSIPELAS	SWINE FEVER
JANUARY	1,600	4,678	290	3,662
FEBRUARY	1,300	7,637	40	1,741
MARCH	1,410	7,197	243	2,484
APRIL	2,800	8,935	179	1,915
MAY	3,920	8,390	484	1,811
JUNE	3,680	9,995	181	1,740
JULY	2,820	6,935	338	1,945
AUGUST	3,520	6,215	458	2,169
SEPTEMBER	450	2,160	220	1,485
OCTOBER	300	2,466	240	1,237
NOVEMBER	1,400	3,750	403	1,754
DECEMBER	1,500	3,000	433	1,487
TOTAL	24,700	71,358	3,509	23,430
GOZO				
JANUARY	-	7,600	-	628
FEBRUARY	-	2,900	10	563
MARCH	100	4,000	-	-
APRIL	7,050	12,000	136	36
MAY	1,500	2,900	105	554
JUNE	4,350	4,500	-	696
JULY	200	500	45	273
AUGUST	-	500		50
SEPTEMBER	-	-	15	103
OCTOBER	-	-	-	333
NOVEMBER	-	-	-	808
DECEMBER	-	-	106	215
TOTAL	13,200	34,900	417	4,259

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TABLE 4

MONTH	IMPORTATION BULLS	BULLOCKS	TOTAL imported	SLAUGHTERED MALTA	GOZO	TOTAL slaughtered	BALANCE -	+
Stock in hand on 1st January, 1966								1,216
JANUARY	-	-	-	507	12	519	519	
FEBRUARY	-	365	365	374	7	381	16	
MARCH	-	1,114	1,114	444	-	444	-	670
APRIL	-	588	588	468	-	468	-	120
MAY	-	894	894	461	-	461	-	433
JUNE	-	612	612	589	2	591	-	21
JULY	-	319	319	549	3	552	233	-
AUGUST	-	300	300	523	4	527	-	227
SEPTEMBER	-	147	147	515	5	520	373	-
OCTOBER	-	869	869	466	7	473	-	396
NOVEMBER	-	799	799	445	1	446	-	353
DECEMBER	-	1,011	1,011	529	6	535	-	476
TOTALS	-	7,018	7,018	5,870	47	5,917	1,141	3,912

STOCK ON HAND ON 1st JANUARY, 1966	=	1,216
Imported during 1966	...	7,018
		8,234
Slaughtered during 1966		5,917
STOCK ON HAND ON 1st JANUARY, 1967		2,317

TABLE 8

SLAUGHTERINGS DURING THE PERIOD 1st JANUARY TO 31st DECEMBER, 1966

MALTA

MONTH	CATTLE	PIGS	SHEEP	LAMBS	GOATS	KIDS	EQUINES
JANUARY	673	2,745	405	476	639	301	41
FEBRUARY	577	2,552	466	261	548	280	34
MARCH	680	2,833	548	121	596	821	30
APRIL	692	2,969	628	256	481	381	27
MAY	685	2,819	492	81	500	195	26
JUNE	738	2,615	485	46	469	132	22
JULY	771	2,542	435	16	496	88	25
AUGUST	744	2,467	412	27	456	48	24
SEPTEMBER	680	2,661	443	315	379	31	25
OCTOBER	616	2,714	394	1,206	551	13	21
NOVEMBER	646	2,893	473	1,002	529	41	26
DECEMBER	689	3,312	441	746	497	126	27
TOTAL	8,191	33,122	5,622	4,553	6,240	2,457	325
WEIGHT	2,555,206	2,771,264	210,140	42,294	159,336	8,758	69,235
AV.WEIGHT	312	83	37	9	25	3	213
GOZO							
JANUARY	59	294	12	49	17	1	2
FEBRUARY	55	321	8	119	22	9	-
MARCH	58	276	10	94	21	109	-
APRIL	54	253	9	28	25	161	-
MAY	45	281	9	2	14	62	1
JUNE	44	256	3	2	4	14	-
JULY	58	237	14	-	5	13	2
AUGUST	67	217	5	1	8	4	2
SEPTEMBER	54	224	16	81	5	1	-
OCTOBER	43	192	21	353	4	-	-
NOVEMBER	36	271	14	208	9	12	3
DECEMBER	45	295	15	117	9	-	2
TOTAL	618	3,117	136	1,060	143	326	12
WEIGHT	203,324	325,004	4,060	10,908	3,637	1,956	3,022
AV. WEIGHT	329	104	29	10	25	6	252

TABLE 8

RESPECTIVE WEIGHTS IN ROTOLI OF ANIMALS SLAUGHTERED DURING 1966

MALTA

MONTH	CATTLE	PIGS	SHEEP	LAMBS	GOATS	KIDS	EQUINES
JANUARY	207,325	234,824	15,172	4,425	16,006	1,346	8,860
FEBRUARY	160,627	218,218	17,031	2,449	13,692	1,365	7,200
MARCH	210,801	242,365	20,175	1,146	14,848	1,245	6,307
APRIL	213,836	249,527	22,985	2,419	12,052	1,700	5,863
MAY	214,314	240,462	18,138	789	12,503	856	5,550
JUNE	225,758	194,882	16,639	463	11,914	578	4,570
JULY	238,169	208,004	16,189	155	12,237	419	5,304
AUGUST	234,653	197,982	15,633	267	11,558	227	4,635
SEPTEMBER	217,962	224,832	16,664	2,840	12,272	152	5,490
OCTOBER	197,770	228,148	15,007	11,272	14,620	65	4,580
NOVEMBER	211,238	246,246	19,150	9,270	14,111	205	5,481
DECEMBER	222,753	285,774	17,357	6,799	13,523	600	5,395
	2,555,206	2,771,264	210,140	42,294	159,336	8,758	69,235

GOZO

JANUARY	19,467	29,321	372	516	410	6	324
FEBRUARY	17,854	33,134	265	1,241	582	42	-
MARCH	19,702	29,182	308	996	544	329	-
APRIL	17,782	27,299	306	294	648	940	-
MAY	15,103	28,398	292	20	356	366	170
JUNE	14,404	26,658	88	20	114	89	-
JULY	18,435	23, 468	130	-	130	78	558
AUGUST	19,341	22,574	168	12	194	26	574
SEPTEMBER	17,858	22,922	524	825	130	6	-
OCTOBER	14 164	19,789	671	3,624	101	-	-
NOVEMBER	12,526	30,544	461	2,139	202	74	800
DECEMBER	16,688	30,715	475	1,221	226	-	578
	203,324	325,004	4,060	10,908	3,637	1,956	3,022

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TABLE 15

i) Co-operative Societies on Register as on 31st December, 1966

Primary

Agricultural Produce	15 (a)
Agricultural Equipment	3
Tailors (Supply	1 (b)
Milk Producers	1
Consumers	4 (c)
Milk and Agric. Producers	1
Wine Producers	1
Egg Producers	2
Agricultural Trading	1
Fisheries Cooperative	1

Central

Agricultural	1
Total number of societies	31
Membership (estimated)	3,100

(a) 3 in course of liquidation
(b) 1 in course of liquidation
(c) 2 in course of liquidation

ii) Principal Items of Assets and Liabilities of Co-operative Societies 1966

Liabilities:

Shares	45,007	
Reserves and Provisions	4,772	
Creditors	146,536	
Disposable Balances	2,328	
Loans	41,120	£239,763

Assets:

Immovables	131,353	
Movables and Stock	33,925	
Debtors	27,332	
Investments	10,478	
Cash in hand and at Bank	20,595	
Deficiency in Capital	16,080	£239,763

TABLE 24

LOCAL CATCH OF FISH AND IMPORTS OF FRESH FISH - WEIGHT AND VALUE - 1956-1966

YEAR	TOTAL	LOCAL CATCH	IMPORTED
	WEIGHT (Cwt)		
1956	18,874	16,775	2,099
1957	20,037	18,015	2,022
1958	23,579	21,101	2,478
1959	22,146	20,791	1,355
1960	26,092	24,341	1,751
1961	28,593	27,008	1,585
1962	27,891	26,343	1,548
1963	30,938	29,815	1,123
1964	27,488	26,955	533
1965	26,044	25,575	469
1966	26,455	25,520	935
	VALUE £		
1956	159,355	135,720	23,635
1957	192,672	168,285	24,387
1958	226,502	204,115	22,387
1959	215,891	200,729	15,162
1960	245,862	227,053	18,809
1961	258,396	236,601	21,795
1962	265,748	248,770	16,978
1963	296,040	283,207	12,833
1964	333,396	324,094	9,302
1965	342,009	334,351	7,658
1966	334,687	319,454	15,233

TABLE No. 17b

FISH CAUGHT DURING 1966 in (RTAL)

CCOLA	–	–	–	–	423	547	441	365	–	–	–	–	1,776
RZNELL/MUNQAR	9,339	16,470	30,710	40,929	25,695	2,991	1,255	–	–	–	4,830	10,972	143,201
WWISTA	–	–	–	–	–	–	–	–	–	–	–	–	–
OLL/HAM/RAI	504	2,271	2,546	2,768	2,472	3,916	815	1,941	–	–	–	1,083	18,316
RIEQEX	–	–	–	–	–	–	–	–	–	–	–	–	–
RNA	–	255	–	466	1,210	2,249	2,352	1,358	–	277	524	–	8,691
ENTICI	217	–	296	459	583	420	277	288	–	–	–	459	2,999
OTT/HANZIR	–	–	–	559	1,588	792	949	958	–	–	–	–	4,846
ANFRI	–	–	–	–	–	–	–	–	59,496	50,235	12,872	–	122,603
EKRUNA	–	–	–	–	–	–	–	–	–	–	–	–	–
GALLINA	280	463	476	418	776	827	431	–	–	–	–	–	3,671
GAMBLI	1,193	2,926	2,893	5,545	5,035	4,537	2,600	2,990	1,490	1,390	2,254	959	33,812
HUTA KAHLA	524	354	3,444	2,481	2,316	1,093	612	–	204	–	1,215	332	12,575
IMSELL	–	–	–	–	–	–	–	–	–	–	–	–	–
AHLI	573	412	281	414	627	1,189	562	740	–	–	–	309	5,107
KAVALLI	–	–	–	–	852	5,346	13,584	5,850	–		–	–	25,632
KLAMARI	1,182	1,056	298	253	–	345	569	1,469	–	–	391	2,800	8,363
LACCI	733	224	–	486	2,609	1,911	4,512	2,791	–	–	–	–	13,266
LAMPUKI	275	–	–	–	–	–	–	14,229	185,307	223,164	100,584	3,087	526,646
MAKKI	–	–	–	–	586	1,640	5,170	13,990	–	2,369	675	–	24,430
MAZZOLA	414	2,024	786	1,914	2,914	2,895	1,352	788	263	242	1,036	1,164	15,788
MERLUZZ	–	–	–	–	369	–	–	–	–	–	–	–	369
MORINA	375	590	561	1,824	3,014	1,254	965	410	–	–	–	781	9,774
MULETT	214	–	212	–	285	651	360	323	229	322	–	595	3,191
PAGELL	669	1,172	1,113	1,688	1,495	267	–		–	–	315	1,704	8,423
PAGRI	–	–	–	–	316	864	999	–	–	–	–	–	2,179
PIXXIPLAMTU	–	402	358	1,764	507	–	–	414	–	–	–	–	3,445
PIXXISPAD	360	–	–	1,656	16,161	10,224	48,367	20,058	–	–		–	96,826
PLAMTU	209		574	218	350	–	–	–	–	–	–	–	1,351
QARNIT	2,358	2,845	2,468	5,105	3,560	4,867	2,934	2,602	1,187	1,800	5,061	5,542	40,329
SARGU	242	271	356	651	894	438	–	342					3,194
SAWRELL	29,626	14,273	9,363	496	5,017	23,788	23,208	11,139	–	–	555	20,781	138,246
SICC	–	–	–	297	–	–	–	–	–	–	–	–	297
SIRRAN	686	1,078	2,627	2,401	1,103	–	–	–	–	–	–	740	8,635
ONN/TONNAGG	959	–	–	–	315	810	770	–	7,662	3,323	3,669	–	17,508
TRILL	–	2,833	1,309	1,755	3,526	1,443	–	757	–	–	–	1,797	13,420
TUMBRELL	3,969	3,154	4,413	15,599	7,669	–	558		228	391	4,295	1,026	41,302
VOPI	21,409	15,023	10,559	5,239	15,876	36,724	31,397	31,946	9,256	4,923	14,982	26,064	223,398
XILEP	258	374	696	695	1,338	594	414	1,437	–	516	360	559	7,241
XATLU	–	–	254	479	476	625		256	–	–	–	–	2,090
ZAGHRUN	–	–	–	2,136	2,867	925	3,121	3,045	–	–	–	–	12,094
ZJT ĠEHOR	3,929	1,878	1,772	1,217	1,975	3,672	1,968	1,988	716	462	1,874	6,805	28,256
TOTAL	80,497	70,348	78,305	99,312	114,799	117,844	150,552	122,470	266,038	289,414	155,402	87,559	1,633,290

YEAR	QUANTITY RTAL	WHOLESALE VALUE £	RETAIL VALUE £	AVERAGE RET. PRICE PER RATAL	QUANTITIY RTAL	WHOLESALE VALUE £	RETAIL VALUE £	AVERAGE RET. PRICE PER RATAL	TOTAL QUANTITY RTAL
1965									
January	82,773	15,277	20,038	4/10	1,181	309	427	7/3	83,954
February	60,006	12,217	15,595	5/2	540	92	146	5/5	60,546
March	93,954	20,646	26,072	5/6	1,820	579	760	8/4	95,774
April	94,415	20,913	26,816	5/8	3,560	1,028	1,383	7/9	97,975
May	101,336	23,202	30,091	5/11	-	-	-	-	101,336
June	144,298	30,085	39,344	5/5	12,154	3,573	4,733	7/9	156,452
July	167,477	31,500	45,873	5/6	5,572	1,300	1,857	6/8	173,049
August	109,180	20,886	28,720	5/3	-	-	-	-	109,180
September	223,126	53,197	65,872	5/11	5,170	832	1,200	4/8	228,296
October	265,987	53,495	66,979	5/-	-	-	-	-	265,987
November	188,473	36,064	49,056	5/3	-	-	-	-	188,473
December	105,791	17,379	23,162	4/5	-	-	-	-	105,791
	1,636,816	334,861	436,617	-	29,997	7,658	10,526	-	1,666,813
1966									
January	80,497	16,673	21,550	5/4	4,672	851	1,211	5/2	85, 169
February	70,348	13,932	17,959	5/1	1,520	316	430	5/8	71,868
March	78,365	15,097	19,778	5/1	-	-	-	-	78,365
April	99,912	19,103	24,822	5/-	-	-	-	-	99,912
May	114,799	23,983	31,970	5/7	1,195	396	508	8/6	115,994
June	117,844	24,995	32,698	5/7	8,230	2,682	3,505	8/6	126,074
July	150,552	30,225	41,848	5/7	16,760	4,135	5,028	6/-	167,312
August	122,470	24,320	33,213	5/5	17,442	4,565	5,873	6/9	139,912
September	266,038	51,604	68,236	5/2	880	256	322	7/4	266,918
October	289,414	50,931	69,277	4/10	-	-	-	-	289,414
November	155,492	30,349	40,073	5/2	2,970	507	804	5/5	158,462
December	87,559	18,242	23,481	5/5	6,190	1,525	1,989	6/5	93,749
	1,633,290	319,454	425,005	-	59,859	15,233	19,670	-	1,693,149

TABLE 12

STATEMENT SHOWING LOANS AND GRANTS ISSUED FROM

1.1.66 to 31.12.66

	CRAFT		EQUIPMENT		ENGINES		
	LOAND	GRANTS	LOAN	GRANT	LOAN	GRANT	TOTAL
1.	375	225					600
2.	300	180					480
3.	142	100					242
4.	512	307					819
5.	1,818	1,087					2,905
6.	300	180					480
7.	661	396					1,057
8.	837	502					1,339
9.			50	20			70
10.			150	60			210
11.			50	20			70
12.			150	60			210
13.			158	63			221
14.			154	61			215
15			129	51			180
16.			100	40			140
17.			74	29			103
18.			1,050	420			1,470
19.					-	480	480
20						240	240
	4,945	2,977	2,065	824	-	720	11,531
	£7,922		£2,889		£720		

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TABLE 20

AGRICULTURE

i) ORDINARY EXPENDITURE 1961/67

	A. PERSONAL EMOLUMENTS						B. OTHER CHARGES					
	ACTUAL 1961/62	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ACTUAL 1965/66	ESTIMATES 1966/67	ACTUAL 1961/62	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ACTUAL 1965/66	ESTIMATES 1966/67
	£	£	£	£	£	£	£	£	£	£	£	£
Office	21,943	20,398	15,768	19,965	20,932	22,474	-	-	-	-	-	-
Advisory Service	3,898	4,971	6,019	6,816	6,814	8,488	-	-	-	1,381	1,791	2,000
Government Farm	5,448	5,619	5,764	5,620	5,453	6,265	40,941	41,917	37,118	36,100	38,266	38,515
Gardens, Plantations & Afforestation	31,128	29,617	29,430	31,148	31,881	33,284	31,029	27,922	27,997	27,342	29,437	27,948
Plant Pathology Viticulture and Oenology	2,568	2,590	2,586	2,554	1,871	2,768	14,388	13,475	11,797	11,752	11,459	13,375
Marketing	3,243	4,089	5,446	5,828	6,400	6,573	1,105	1,324	1,340	1,677	1,697	1,750
Veterinary Services	17,212	17,200	17,238	17,723	17,880	19,212	7,393	7,621	7,588	8,765	7,176	9,274
Fisheries	-	12,137	12,615	13,431	13,668	14,346	-	20,918	20,611	17,347	20,935	23,277
General Services	-	-	-	-	-	-	9,237	10,161	9,326	13,958	15,019	15,663
Subsidies	-	-	3,843	-	-	-	1,706	76,607	72,871	86,857	78,158	82,395
	85,440	96,571	98,709	103,085	104,899	113,410	105,599	199,945	188,657	204,177	203,938	214,197

	£
ACTUAL - 1963/64	
Purchase of Livestock for Government Farm	500
ACTUAL - 1964/65	
International Congress on Brucellosis	356
Training of a Veterinary Surgeon	70
Assistance given to M.V. Hannibal	810
	1,236
ACTUAL - 1965-66	
Purchase of livestock	877
Training of a Veterinary Surgeon	123
Grants to fishermen	19,290
Repairs to Public Gardens	997
Electric Unit for Gozo Abattoir	49
Purchase of a duplicator	82
Adaptation Works of Premises at it-Tokk Gozo	467
	21,885
Estimates - 1966-67	
Purchase of livestock for Government Farm	1,000
Repairs to Public Gardens	5,000
Expenses in connection with stray dogs	400
Expenses inconnection with Research	300
Expenses in connection with second session of the working party of the Water Resources and Irrigation of European Commission on Agriculture	380
Expenses i.c.w. the International Conf. on sheep diseases	250
Repairs to elec. installation at Civil Abattoir	6,000
Installation of an elec. refrig. plant at C.Abattoir, Gozo	850
Centralization of nurseries at Tal-Kmand	4,000
Purchase of a Rotovator	200
Purchase of Bowser	2,300
Purchase of a duplicator	80
Purchase of 2 typewriters	120
Replacement of one motor scooter	120
Provision of wire enclosure at Livestock Centre, Gozo	200
	£21,200

iii) E. CO-OPERATIVES - 1967

	ACTUAL 1961/62	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ACTUAL 1965/66	ESTIMATES 1966/67
Personal Emoluments	£2,709	£2,684	£6,558	£2,782	£2,361	£2,922
Other Charges	7,639	6,451	2,567	7,023	6,996	7,168
Special Expenditure	-	-	-	-	-	-
	£10,348	£ 9,135	£9,125	£9,805	£9,357	£10,090

iv)F.PITALI MARKETS - 1967

	ACTUAL 1961/62	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ACTUAL 1965/66	ESTIMATES 1966/67
Personal Emoluments	£18,853	£18,776	£18,791	£19,113	£20,179	£20,663
Other Charges	3,696	3,128	3,929	3,869	3,185	4,052
Special Expenditure	-	-	-	-	-	-
	£22,549	£21,904	£22,720	£22,982	£23,364	£24,715

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CAPITAL EXPENDITURE - AGRICULTURE AND FISHERIES

DETAILS OF EXPENDITURE	ACTUAL EXPENDITURE 1959/64	PLAN ESTIMATE 1964/69	ESTIMATE 1964/65	ACTUAL EXPENDITURE 1964/65	ESTIMATE 1965/66	ACTUAL EXPENDITURE 1965/66	ESTIMATE 1966/67
1. Cattle Disease Eradication Scheme	137,984	54,385	21,100	23,450	18,815	14,388	8,500
2. Animal Vaccination Scheme	19,944	1,056	1,056	-	1,056	941	386
3. Incentive Grants to Farmers	25,546	[illegible]	12,660	8,985	10,550	2,857	20,000
4. Expenses in connection with Experts	47,600	39,608	7,773	2,915	7,754	-	8,000
5. Training of Personnel Abroad	26,749	32,705	4,220	1,986	7,906	1,884	7,000
6. Adopted Farms	3,055	2,945	2,945	20	2,925	677	2,000
7. Grants to Farmers	51,399	100,000	13,200	13,707	17,700	30,038	24,800
8. Public Gardens, Plantations and Afforestations	98,850	68,243	10,000	10,000	15,825	14,385	10,480
9. Improvements to Public Gardens	1,309	8,691	8,691	8,515	1,774	157	20
10. Modernisation of Civil Abattoir, Malta (a)	17,696	604	604	118	486	403	-
11. Cattle Quarantine Station	-	42,200	26,375	847	27,825	15,212	17,000
12. Equipping and Staffing Research Laboratory	-	53,317	14,770	827	13,000	73[illegible]	10,500
13. General Development of Horticulture	-	211,332	50,295	3,960	73,575	30,094	98,000
14. Fruit Planting Incentive Grants	-	12,659	792	596	1,503	1,248	2,800
15. Development of Viticulture	-	17,824	5,480	1,223	4,642	4,60[illegible]	3,500
16. Mobile St[illegible]n Sterlizing Units	-	11,606	5,803	-	11,606	-	100
17. Agricultural Preduce Inspection Shed	-	24,792	9,495	-	9,495	-	8,800
18. Assistance to Co-operatives (Grants)	-	30,000	10,000	-	6,000	-	11,000
19. Improvements to Farmhouses (Grants)	-	23,000	7,200	-	5,000	3,436	4,600
20. Establishment of Agricultural Laboratories	-	12,132	6,330	879	7,802	1,335	5,000
21. Eradication of Swine Diseases	-	15,000	5,000	-	6,000	1,447	8,600
22. Purchase of Adaptation of R.N. Abattoir	-	2,000	2,000	-	2,000	40	1,960
23. Loans to Farmers	165,000	150,000	19,800	20,049	26,550	44,397	37,200
24. Assistance to Co-operatives (Loans)	-	45,000	2,500	-	9,000	-	16,500
25. Improvements to Farmhouses (Loans)	-	34,500	1,800	-	7,500	5,035	6,900
26. Equipping and Staffing Diagnostic Laboratory	-	40,177	-	-	7,918	2,964	10,500
27. Central Markets.	-	136,833	-	-	10,000	-	39,000
Development of Pig Breeding Industry	-	19,500			-	174	9,730
TOTAL AGRICULTURE	£595,132	£1,260,199	£249,889	£98,077	£314,207	£176,457	£372,876

Fisheries:- (continued overleaf

DETAILS OF EXPENDITURE (F I S H E R I E S)	ACTUAL EXPENDITURE 1959/64	PLAN ESTIMATE 1964/69	ESTIMATE 1964/65	ACTUAL EXPENDITURE 1964/65	ESTIMATE 1965/66	ACTUAL EXPENDITURE 1965/66	ESTIMATE 1966/67
28. Grants to Fishermen	21,953	34,000	5,500	5,658	6,000	8,361	6,800
29. Improvements at Marsaxlokk	-	37,980	2,500	7,627	16,880	16,034	13,473
30. Provision of 2 winches at Marsaxlokk and Wied iz-Zurrieq	-	2,907	2,907	-	2,907	749	2,907
31. Construction of Mles	-	79,000	15,825	4,977	26,703	5,620	40,000
32. Extension of Moles at Wied iz-Zurrieq	-	11,605	6,330	326	11,279	1,395	9,929
33. Fishing Research	-	15,498	5,380	-	5,380	309	4,200
34. Sundry Works at Fishing Centres	12,000	25,320	7,385	5,680	8,330	9,741	5,300
35. Loans to Fishermen	30,875	51,000	9,000	5,977	9,750	11,665	10,200
36. Dredging of Inner Part of Marsaxlokk	-	47,475	-	-	21,000	14	47,000
37. Building of Dwelling Units	-	64,988	-	-	21,000	8,753	29,000
38. Expropriation of Lands and Old Fishpons at Marsaxlokk (a)	2	15,020	8,998	15,000	14,105	20	-
TOTAL FISHERIES	64,830	384,793	63,825	45,245	143,534	62,661	168,809
TOTAL AGRICULTURE	595,132	1,260,199	249,889	98,077	314,207	176,457	372,876
COMPLETED SCHEMES							
Equipping for Crop Protection Spraying Service	8,031	1,769	1,769	1,769	-	-	-
TOTAL EXPENDITURE	£667,993	£1,646,761	£315,483	£145,091	£457,741	£239,118	£541,685

(a) Completed in 1965/66

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REVENUE 1961 - 66

	ACTUAL 1961/62	ACTUAL 1962/63	ACTUAL 1963/64	ACTUAL 1964/65	ACTUAL 1965/66	ESTIMATES 1966/67
II Fees of Office and Reimbursements						
. Fees of Office						
griculture and Fisheries						
isheries						
4. Fees for Fish-hawker Arm Badges	12	10	16	15	12	15
5. Permits and Licences	58	43	38	38	40	60
eterinary Services						
3. Abattoir Fees	17,344	19,006	16,693	15,105	15,078	17,000
griculture						
4. Licences, certificates, etc.	261	522	360	341	392	350
	17,675	19,581	17,107	15,499	15,522	17,425
. Reimbursement						
isheries						
6. Sale of Fishing Equipment	10,505	8,296	9,959	6,998	7,569	9,000
7. Sale of Fish from experimental fishing Vess	1,283	2,115	1,142	-	-	
8. Commission on sales of imported fish	400	250	250	-	-	300
griculture						
8. Sale of vegetables from Government Farm	1,694	2,159	2,597	2,034	2,728	3,500
9. Sale of livestock from Government Farm	4,962	4,688	4,298	3,986	3,200	4,000
0. Sale of Dairy Produce	3,554	3,920	2,995	2,858	2,873	3,300
1. Sale of vine rootlings etc. from vine nurser.	400	11	10	2,858	2,873	3,300
2. Sale of trees, plants from public plantations	1,639	1,521	1,561	1,280	1,934	1,500
3. Sale of Fruit etc. from S. Anton Gardens	628	606	701	643	654	700
4. Sale of fruit etc. From Buskett Gardens	1,575	1,145	1,776	2,171	1,758	2,000
5. Sale of fruit etc. from Dar il-Ljuni Gds.	118	53	115	111	103	100
6. Sale of hatching eggs & Poultry from G. Farm	7,784	6,133	5,515	4, 384	5,450	6,000
7 Sale of Honey	-	-	12	30	24	20
8. Inspection of Agricultural Produce		561	450	379	256	800
9. Sale of Wine	747	747	258	144	-	10
1. Service by skilled Peronnel of the Dept. on	4,439	2,760	4,146	2,481	2,507	2,500
Distribution to Farmers				-	27	1,000
ETERINARY SERVICES						
2. Maintenance of dogs kept under observation	67	78	130	131	254	150
ISCELLANEOUS REIMBURSEMENT						
3. Miscellaneous	620	638	408	698	1,239	550
Sale of Poultry Vaccine				-	161	500
	40,986	35,303	36,146	28,788	30,737	35,940
XII INTEREST						
4. Interest of Loans	2,718	2,198	2,824	2,770	2,499	2,800
XII PENSION CONTRIBUTIONS						
1. Contribution udder the Widows and Orphans	1,016	1,080	1,115	1,218	1,226	1,200
XVI MISCELLANEOUS RECEIPTS						
2. Miscellaneous	2,099	189	172	653	23	500
5. Repayment of Loans	12,114	18,971	19,155	27,373	35,247	32,000
	14,213	19,160	19,327	28,026	35,270	32,500
SUMMARY						
II. A. Fees of Office	17,675	19,581	17,107	15,499	15,522	17,425
B. Reimbursement	40,986	35,303	36,166	28,788	30,737	35,940
II. Interest	2,718	2,198	2,824	2,770	2,499	2,800
III. Widows and Orphans (Pensions Act 1927)	1,016	1,080	1,115	1,218	1,226	1,200
VI. Miscellaneous Receipts	14,213	19,160	19,327	28,026	35,270	32,500
	76,608	77,322	76,539	76,301	85,254	89,865

TABLE 21

VALUE OF AGRICULTURAL EXPORT

	1959 £	1960 £	1961 £	TOTAL 1959/61	1962 £	1963 £	1964 £	TOTAL 1962/64	1965 £	1966 £	TOTAL 1965/66
POTATOES ...	271,665	371,000	379,872	1,022,537	371,000	486,724	246,530	1,104,254	368,229	466,986	835,215
ONIONS ...	23,897	19,000	14,411	57,308	71,000	51,938	55,915	178,853	28,227	154,013	182,240
CUT FLOWERS, FOLIAGE and PLANT CUTTINGS ...	50,077	57,202	82,136	189,415	130,000	198,361	181,243	509,604	221,290	260,549	481,839
SEEDS AND BULBS ...	3,415	2,959	3,986	10,360	1,617	6,323	8,702	16,462	2,918	4,354	7,272
TOMATOES ...	50	21	211	282	900	4,677	4,555	10,132	5,063	26,583	31,646
ANIMALS LIVING ...	120	1,276	1,993	3,389	3,426	2,627	6,272	12,325	11,020	29,216	40,236
				£1,283,291				£1,831,810			£1,578,448
WINE ...	17,727	49,491	55,418	122,636	148,000	241,256		688,895	299,974	334, 891	634,865
TOMATO PUREE' ...	301	140	-	441	-	9,623	10,257	19,880	21,524	53	21,577
TALLOW ...	4,210	17,862	6,750	28,822	600	11,960	6,553	19,113	3,700	2,850	6,550
WOOL RAW ...	4,170	3,300	2,150	9,620	1,172	4,824	2,390	8,386	2,610	5,483	8,093
HORSE HAIR ...	61	500	420	981	507	720	850	2,077	180	310	490
HIDES AND SKINS ...	89,655	49,017	59,807	198,479	40,693	52,697	34,828	128,218	39,057	34,542	73,599
BONES AND HOOFS ...	-	600	675	1,275	300	700	-	1,000	-	-	-
				£362,254				£867,569			£745,174
				£1,645,545				£2,699,379			£2,323,622